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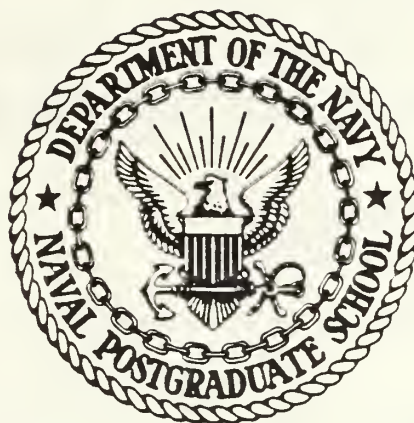






# NAVAL POSTGRADUATE SCHOOL

Monterey, California



## THESIS

INFLUENCES OF HIGH QUALITY ARMY  
ENLISTMENTS

by

Rosanna L. Gray

Thesis Advisor:

George Thomas

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Influences of High Quality Army Enlistments

by

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Lieutenant, United States Navy

B.A., Western Washington University, 1977

Submitted in partial fulfillment of the  
requirements for the degree of

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from the

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## ABSTRACT

This thesis investigated the relationship between the quality of soldiers and influences on their enlistment decision. Influences analyzed include economic benefits of enlisting, military advertising, and Army recruiters. Data were from the 1985 New Recruit Survey of active duty Army recruits. The analysis attempted to determine what differences, if any, there are in the influences on the enlistment decision of soldiers who score above the expected population mean on the Armed Forces Qualification Test (AFQT) portion of the Armed Services Vocational Aptitude Battery (ASVAB), and the influences on those who score in the lower half of the AFQT. The results of principal components and discriminant analysis indicated that educational benefits such as the New GI Bill strongly influenced high quality soldiers. Advertising and recruiters were also important influences on the enlistment decision.

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## I. INTRODUCTION

The success of the all-volunteer force depends on the ability of the individual military services to meet their requirements for personnel. The requirement for quality recruits has been increased during the 1980's. The services must constantly evaluate the effectiveness of programs dedicated to meeting the military's manpower requirements. The Fiscal Year 1985 Department of Defense budget authority was 305 billion dollars. Of that, \$70.6 billion was tagged for Military Personnel (Department of Defense, Annual Report, Fiscal Year 1985, p. 57).

The purpose of this thesis is to investigate the influences on the enlistment decision of Army recruits. With more knowledge about what motivates individuals to serve on active duty, those resources used to reach potential recruits might be directed in a more cost-effective and efficient manner.

### A. THE QUALITY ISSUE

The services have always been able to meet their volume requirements. The problem has been enlisting the quality of person needed to learn the technical skills required in the modern armed forces and to perform well in a variety of military scenarios.

The United States military services primarily use two criteria to judge the quality of an applicant going through the recruitment process. One is performance on the Armed Services Vocational Aptitude Battery (ASVAB) and the other is the level of education attained. For the purposes of this study, the definition of "quality" used within the Department of Defense will be adopted. A high quality recruit is one who is a high school diploma graduate, and has a percentile score of 50 or higher on the Armed Forces Qualification Test (AFQT). (The recruit must also be medically and morally qualified.)

The ASVAB consists of ten tests measuring verbal, mathematical, technical, and speed factors. The Armed Forces Qualification Test (AFQT) score is computed from ASVAB subtests. Four subtests (word knowledge, paragraph comprehension, arithmetic reasoning, and numerical operations) are used. The AFQT score is used to determine the applicant's mental group category.

The classification of all recruits into a mental group is done to allow Congressional monitoring of mental-group composition of the services. The mental group categories are constructed so that a representative national population would achieve the distribution shown in Table 1.

ASVAB scores are grouped into five categories. Category I and II individuals are considered above average in

TABLE 1

## PERCENTILE LIMITS FOR MENTAL CATEGORY SCORES

Category	Percentile Limits
I	93-99
II	65-92
IIIA	50-64
IIIB	31-49
IV	10-30
V	1-9

---

Source: Department of Defense

trainability; those in Category III, average; individuals in Category IV, below average; and those in Category V significantly below average in trainability and not eligible to enlist under current policy (Sellman, 1983, p. 99). Categories III and IV are further divided into IIIA and IIIB and IVA and IVB. A majority of recruits score within the upper 50 percentile, Categories I, II, and IIIA (Barclay, 1984, p.66). The services prefer to enlist those with high AFQT scores because they qualify for job training in a variety of occupational areas and can be trained more quickly.



Since its inception in 1976, problems in norming the AFQT make it necessary to be cautious in comparing different versions. Nevertheless, scores achieved on the AFQT can be compared to IQ levels in the total population. (See Appendix A) (Barclay, 1984, p. 66)

Several studies have been done which support the military's determination that a quality recruit is likely to be one who possesses a high school diploma. A high school diploma graduate has shown a greater ability to complete his initial active duty obligation successfully than a non-high school graduate. Enlistees who have not completed high school before they are accessed attrite before completing their initial term of service at about twice the rate of high school graduates (Sellman, 1983, p. 99). Because of the differences in attrition rates between non-high school graduates/General Educational Development (GED) high school equivalency holders and high school graduates, those who do not have a diploma must score higher on the AFQT in order to enlist and be eligible for certain jobs within the service.

Rapid increases in military technology have prompted studies concerning the requirement for high quality personnel in the Armed Forces. Using pay grade attainment as a proxy for job performance, Table 2 indicates that high quality sailors are the better performers in the Navy. (Van Doren, 1981, p. 13).

TABLE 2

U.S. NAVY PAY GRADE DISTRIBUTIONS FOR CY77  
NPS MALE ACCESSIONS ON ACTIVE DUTY 30 SEP 79

<u>Pay Grade</u>	<u>HSDG</u>	<u>High Quality</u>	<u>TOTAL</u>
E-5	5	9	3
E-4	39	53	35
E-3	45	32	46
E-2	9	5	12
E-1	2	2	4
Total	100	100	100
Mean Pay Grade Achieved	3.3	3.6	3.2

---

SOURCE: Van Doren

Of the high quality (HQ) accessions from calendar year 1977, 62 percent advanced to pay grades E-4 or E-5. This rate is 40 percent greater than that of the male high school diploma graduates (HSDG) and 63 percent greater than the rate of advancement to E-4 and E-5 by the total cohort (Van Doren, 1981, pp. 12-13).

The Army 21 study, a research project to determine future manpower requirements in defense, predicted that the demand for quality soldiers will increase in the foreseeable future. ". . .The future soldier must be able to make rapid, independent decisions and be better educated, with an expert level of technological understanding." A soldier must not only be a good fighter, but must score high on the ASVAB to be combat-effective. (Toomepuu, 1986, p. 2)

Binkin's book on the effects of technological growth on DoD manpower requirements cites data that show an increase

in technical jobs from 12 percent in 1953 to more than 27 percent in 1985. The changes in the way the services conduct business dictate changes in the personal qualities needed to be a successful fighter. Several studies undertaken to determine the characteristics of the best performers in combat, based on how a soldier's capabilities contribute to unit and weapon effectiveness, emphasize the importance of intelligence. (Toomepuu, 1981, pp. 2-3)

The Army Skill Qualification Test (SQT) has made it possible to measure on-the-job performance and relate that to aptitude scores. The SQT provides an assessment of how proficient an individual is at performing the essential tasks required by his Military Occupational Specialty (MOS). Multivariate analysis has shown that the strongest predictors of passing the SQT were AFQT scores and Combat Arms aptitude scores. The regression coefficients for both scores were found to be statistically significant. High school graduation status and time in service had small but statistically significant relationships with SQT pass rates. No other demographic variables helped predict passing the SQT. (Armor, et al, 1982, pp. 7-9)

The precursor to the SQT was developed by the Human Resources Research Office. Hands-on tests (including many more job tasks than are included in the SQT) were administered to provide data that allow an investigation of the relationship between job performance and mental ability.

Figure 7 shows that AFQT and proficiency are consistently related. Category IV personnel are substantially less likely to pass the performance tests than personnel with higher AFQT scores. (Armor, et al, 1982, pp. 10-11)

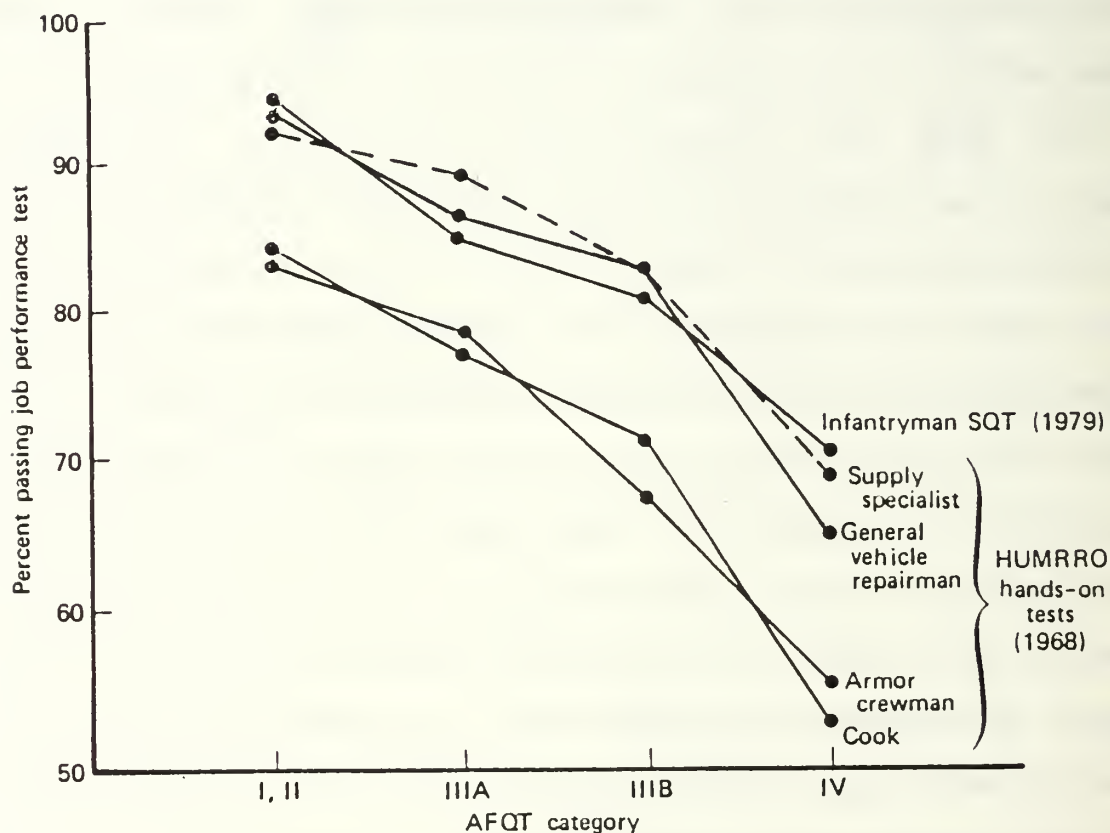


Figure 1. General aptitude and job performance in five Army Specialties. (Source: Armor, et. al., 1982)

## B. QUALITY LEVELS IN THE MILITARY

There have been wide variations in the percentage of non-prior service males in mental categories I-III, but the averages for the years before and during the All-Volunteer



Force are similar. From 1952 to 1973, an average of 78.7 percent of all recruits were in mental groups I-III. From 1973 to 1982 the average was 80.5 percent. (Quester, et al, 1983, p. 13) In 1983 the percent of Mental Category I-III enlistees increased significantly to 89 percent and in 1985 percentage of recruits who scored 31 or better on the AFQT (using 1980 norms) was 93 percent. (Willis, Defense Manpower Data Center) Percentages of recruits considered high quality, Category I-IIIA, are shown in Table 3.

Because the quality of incoming recruits has risen in recent years the service Secretaries have changed recruiting goals. Recruiters are expected to enlist a higher percentage of quality males. Congress questions this because it raises the cost of recruiting. But total force quality has not yet caught up with the quality of first term enlistees. Table 4 shows that in FY 1985 the mean AFQT scores of the Army, Air Force, and Navy were lower than in 1975. Mean AFQT scores in 1985 by grade are given in Table 5. These statistics do not show as bright a picture as those that only give information on new recruits.

This thesis will investigate the influences on the enlistment decision of soldiers in an attempt to provide a basis for cost-effective attainment of desired quality military personnel. The next chapter presents a review of the literature on enlistment incentives and the relationship of incentives to quality distribution. Chapter III provides

a description of the data and the statistical methodology. The results of the analysis and conclusions follow in Chapters IV and V, respectively.

TABLE 3

MEAN AFQT SCORE OF ENLISTED MEMBER'S

FY	Mean AFQT Score by Service			
	USA	USN	USAF	USMC
				No
1975	53.0	61.3	61.1	Data
1981	44.5	57.4	59.5	49.4
1982	46.8	58.5	59.9	50.1
1983	49.4	59.1	60.5	51.5
1984	51.3	59.6	60.2	52.4
1985*	51.4	59.6	60.9	52.4

\*As of 31 Dec. 1984; unrenormed scores, except for some E1-E3, which are renormed to the 1980 reference population.

Source: Toomepuu, September 1986

TABLE 4

MEAN AFQT SCORE OF ENLISTED MEMBERS, FY 85,  
BY RANK AND SERVICE

RANK	Mean AFQT Score			
	USA	USN	USAF	USMC
E-1	52.4	52.3	61.6	52.0
E-2	55.6	54.8	63.6	54.9
E-3	56.6	57.2	63.2	52.7
E-3	49.7	60.4	58.2	49.5
E-4	45.7	61.6	60.7	52.8
E-5	51.4	62.0	58.6	57.3
E-6	54.9	66.1	62.6	59.7
E-7	53.7	67.5	64.8	61.8
E-8	52.9	66.3	66.5	b

a. As of 31 Dec. 1984; unrenormed scores, except for some E1-E3, which are renormed to the 1980 reference population.

b. Insufficient data.

Source: Toomepuu, September 1980

TABLE 5

PERCENT OF MALE EXAMINEES WHO ACHIEVED AFQT PERCENTILE  
SCORES OF 50 OR HIGHER (CATEGORIES I-III A)

Percent Who Scored AFQRT 50 or Higher<sup>a</sup>

Fiscal Year	Army	Navy <sup>b</sup>	Marine Corps <sup>b</sup>	Air Force <sup>b</sup>	Total DoD
1964	39.7	--	--	--	41.9
1965	41.3	--	--	--	43.7
1966	48.0	--	--	--	48.2
1967	49.5	--	--	--	49.6
1968	47.3	--	--	--	47.8
1969	43.0	--	--	--	44.6
1970	51.4	--	--	--	51.0
1971	50.0	--	--	--	50.0
1972	49.8	--	--	--	49.7

-----All-Volunteer Force Transition<sup>c</sup>-----

1973	51.5	50.3	31.2	57.5	51.8
1974	39.6	56.3	39.3	51.6	45.1
1975	37.3	45.2	36.5	54.9	41.7
1976	32.2	39.7	40.3	42.5	36.4
1977	25.1	42.3	33.2	48.4	34.8
1978	26.5	46.5	33.7	49.8	37.4
1979	23.3	45.1	31.7	47.7	34.7
1980	23.0	50.5	36.3	50.7	37.2
1981	26.2	45.9	40.5	51.7	38.1
1982	36.4	49.3	41.4	52.1	43.3
1983	43.7	55.8	49.2	59.7	50.1

**Sources:** Data for years 1964-71 are based upon adjusted preinduction examinee scores reported in Office of the Surgeon General, Form 1043, "Results of Preinduction Examinations Summary and Armed Forces Examining & Entrance Station Qualitative Distribution Report of Male Enlistments, Induction and Rejections, RCS DD-M(M)-663 (Form 1042) (Washington D.C.: Office of the Surgeon General, 1964-71). Data for years 1972-83 were provided by the Defense Manpower Data Center.

<sup>a</sup>Percentages appear according to the Armed Service that tested the examinee. Examinees include only males without prior military service who were tested for the purpose of enlistment or induction.

<sup>b</sup>Separate data on examinees tested by these Services are not available for the period 1964-71.

<sup>c</sup>The official end of the draft occurred on 30 June 1973. The drawdown began in July 1972, with the last draft call issued in December 1972.

Source: Office of Assistant Secretary of Defense (MI&L)

## II. LITERATURE REVIEW

### A. THE ALL-VOLUNTEER FORCE

In 1970 the Gates Commission presented the President of the United States with a plan to implement the all-volunteer force and eliminate conscription. The Gates Commission claimed that a voluntary force would cost less than a mixed force of draftees and volunteers (McGuire, 1972, p. 16). At that time there was much public feeling against conscription and then, as now, there was also public pressure to cut the defense budget. Many believed the draft problem was unsolvable without an increase in defense spending.

During the first ten years of the All Volunteer Force (1974-1984) quantity quotas were generally met. Quality has fluctuated, with the average ASVAB test score becoming progressively lower from 1977 until 1980. This trend reversed in 1981 and there has been steady improvement in recruit quality (as measured by ASVAB performance) since then (Congressional Budget Office, 1986, p.7). Recovery from unsatisfactory recruiting periods was achieved through changes in policy, including increases in military compensation, and because of changing economic conditions which resulted in higher unemployment.

Quester's 1983 study addressed the concerns voiced in Congress and at other levels within the government that the



all-volunteer force may not be able to meet military manpower needs in the future. The study documents changes in the size of the male age 17 to 21 cohort from 1984 to 2004. While it is well known that this youth cohort is decreasing in number this reduction is not unprecedented. The size of the comparable age cohort was actually smaller in the sixties than it will be during the 1980's.

Quester's study indicated that attitudes of American youth toward the military from 1976 to 1981 were favorable and that many more young males stated that they were "likely to enlist" than would be required to meet projected manpower goals. This study found no significant quality differences between the all-volunteer force and the mixed force (a combination of draft and volunteer personnel): ". . .our military today is as good as it has ever been." (Quester, 1983, pp. 23-24)

It is believed by some that, in the interest of fairness, no one subgroup in the population should be substantially overrepresented in the military. There is also concern that if minorities are disproportionately represented in the military our foreign image will be damaged. There is considerable debate about what constitutes representativeness. Most of the discussions concentrate on race and social class, but geographic region, ethnic origin, and education could be included as well.

There was a disproportionate number of minority members in the All-Volunteer Force during the late 1970's, especially blacks. While 22 percent of all military recruits were black, blacks make up about 11 percent of the population. The Army recruit population was approximately one-third black. The military attracts such a high percentage of blacks because unemployment rates are higher for young black males and their earnings potential is lower in the civilian sector. (Quester, 1983, pp. 18-19). The military may become more racially representative as blacks' earnings become more comparable to whites' earnings.

What little historical information is available suggests that the military recruits heavily from the lower middle class. Black and hispanic recruits came from better socioeconomic conditions than their civilian counterparts surveyed in the Youth Cohort portion of the 1979 National Longitudinal Survey of the Labor Force. White recruits showed the opposite class origin, coming from lower socioeconomic conditions than their non-military counterparts. Whites also had more siblings; were more likely to come from single parent homes; were less likely to have a father with a professional occupation and more likely to have had a father in the service, than their counterparts in the civilian sector. (Quester, 1983, p. 24)

Quester maintained that meeting recruiting quotas depends on military wages comparing favorably with civilian

wages. She stated that because real civilian wages will rise for the remainder of the century, the military will have to raise pay 10 to 12 percent by 1995. (Quester, 1983, p. 24)

#### B. THE ENLISTMENT DECISION

The majority of individuals who choose to become employed by the military have little, if any, job experience. Other than part-time work and the moneymaking ventures American youth typically participate in, such as babysitting and delivering papers, the majority of the population from which the military recruits has had no opportunity to find out what the working world is like. Many American youth, primarily recent high school graduates and high school seniors, make their first major adult decision when they decide to enlist in the military. Because the reasons for joining the military are not based on what the individual has learned from several years in the labor market, it is important to know just what influences an American youth to make the enlistment decision.

Schein's 1983 study (Schein, 1984, pp. 1-7) suggests that asking young people about their reasons for enlistment may elicit responses based on each individual's **perception** of what the working world is like, not on what their experience will tell them later. Schein uses the word "career" to describe the internal ideas that individuals hold about their work life and what role they play in their

work situation. Individuals experience different psychological stages as they spend more time in the working world. The first stage consists of thoughts more than actual experience. Occupations are dreamed about based on information gathered from the environment of the dreamer, not from personal experience. The second stage is involved with training for a job. The next stage is the entry into the real work world by obtaining a job. This stage is associated with adjustment problems--somehow meshing fantasies about what the working world would be like with reality. Stage four involves learning the social and job-related rules of the game. In the fifth stage individuals start to have some awareness of their place in the organization and what contributions they may be making to the mission of their workgroup. The following stages culminate in retirement. A sense of one's professional strengths and weaknesses is emerging. Each person's movement through the stages noted is based on an internal timetable. (Schein, 1983, pp. 1-5)

Schein asserts that it is not until an individual reaches stage four that he starts to define his main goals, values, and talents. This sense of self initiates from what was experienced in the childhood home and school environment. But it is only possible to mold a mature self-concept from what is learned after one to ten years of work



experience. We learn more about what we are good at from experience in the working world. (Schein, 1983, pp.7-10)

A series of interviews were undertaken by Glickman, et. al., to map the career development process of young men in the Navy. Figure 1 shows some of the key factors that affect the enlistment and reenlistment decisions. Two areas were studied to develop the model, recruiting and reenlistment. The authors' hypothesis was that career motivation in the Navy is influenced by Naval policies and practices. An individual considering enlistment is subject to influences from his personal background and his image of the military. (Glickman, et. al., 1973, p. 6)

Glickman's interviews of male applicants found that an individual's personal history contributes substantially to the decision to enlist in the Navy. Peers and parents play a role. Personal interests and values affect the perceptions a person has about how the Navy can help him meet his future goals. Most people have only vague ideas about what the Navy can offer them in terms of education and vocational training, nevertheless these ideas influence the decision to join. Now that more than half of all youths enter college after high school there is cultural pressure to deal with in making the decision to postpone education or forgo it. There is a great deal of emphasis placed on personal freedom in our culture today and the military has a reputation for not granting much control over one's personal



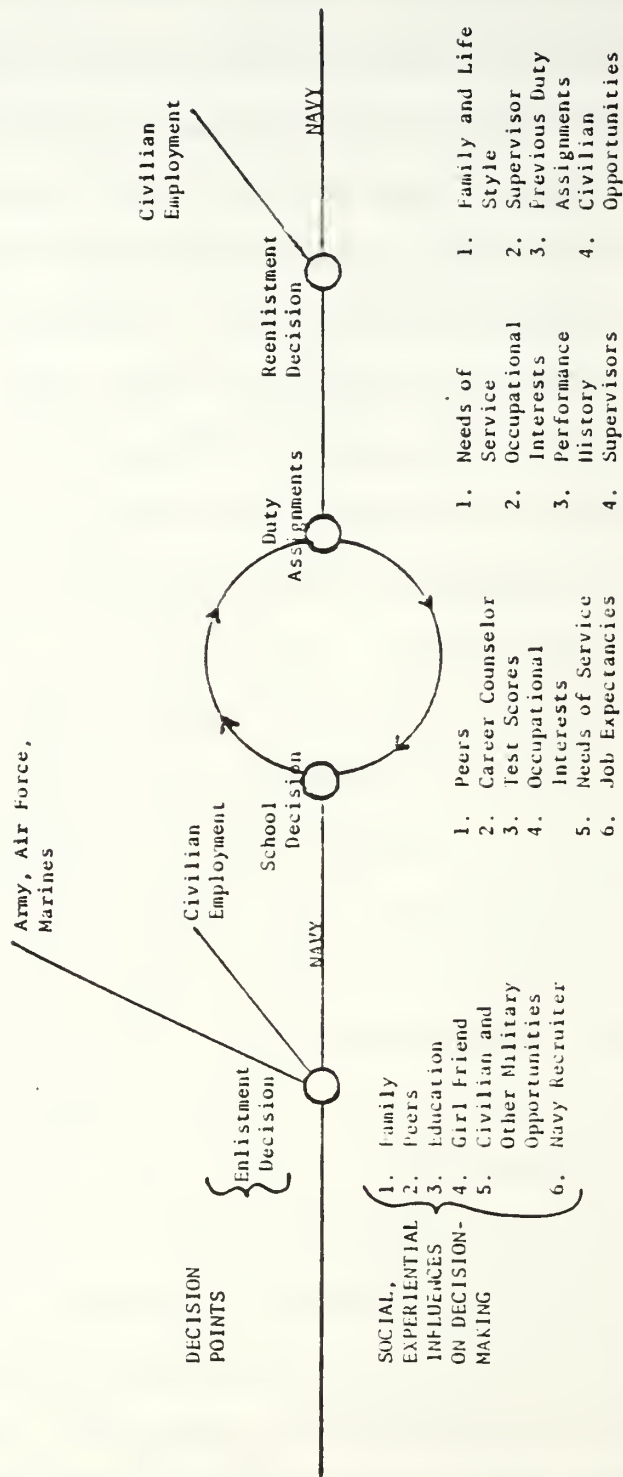


Figure 2. Model of career motivation process in the Navy, including key decision points and influential factors. (Source: Glickman, et. al., 1973)

life. All of these factors come into play when an individual takes the action of going to talk to a recruiter about the Navy. (Glickman, et. al., 1973, pp. 11-13)

The authors hypothesized that when a man goes to see a recruiter he has all but decided to enlist and is seeking specific information from the recruiter. Most potential recruits have an idealized image of the Navy in the beginning. They often believe that they will learn a valuable skill, make a contribution to their country, and be identified with the masculine role associated with the disciplined military life. (Glickman, et. al., 1973, pp. 13-16)

#### C. EARLY RESEARCH ON REASONS FOR JOINING THE MILITARY

Analysis of the influences on the enlistment decision has been pursued for a number of years. Early studies focused on identifying the motivators necessary to obtain the desired number and appropriate quality of enlistments. The following is a summary of studies that have been published in this area.

Several studies were done to assess the reasons for enlistment of men who joined one of the four services in the 25 years prior to 1973, when the military changed to an all-volunteer force. Fisher and Harford researched the most important reasons for enlistment of two groups of Army enlistees surveyed in 1972, a draft period (Fisher and Harford, 1974, p. v). Their study included an historical

review of the influences for joining the military and indicated that from 1949 to 1972 the chance for advanced education and training was the most frequently endorsed reason for enlistment (Fisher and Harford, 1974, p. v).

The opportunity for advanced education was the most influential reason for enlisting in the 1949 Army survey (column 1 of Table 6). A 1972 Army survey asked personnel in various paygrades to select the three most important reasons for enlistment from a list of 10 reasons. The results from this survey, presented in column 2 of Table 2, show that the opportunity to learn a trade or skill valuable in civilian life, the opportunity for advanced education, and the "chance to serve my country" were most frequently selected by Army personnel in 1972. (Fisher and Harford, 1974, pp. 6-7)

Results of the Navy's 1967 and 1968 surveys of enlisted men are presented in columns 3 and 4 of Table 6. Samples of enlistees were asked to indicate the degree of influence that 12 reasons for enlistment had on the decision to enlist. The opportunity for advanced education was endorsed by 94% of the 1967 sample and 85% of the 1968 sample. A 1969 version of the survey had different results. In 1969 the two most influential reasons for enlistment were the opportunity to obtain technical training (86%), and the desire to travel (82%). Results of the 1972 Survey of Navy

TABLE 6

SUMMARY OF REASONS FOR ENLISTMENT, OVER TIME  
(Percent)

	ARMY		NAVY		AIR FORCE	
	AF I&E <sup>a</sup> 1949 Survey (N=1,584)	RAC <sup>b</sup> EL-E3 1972 Survey (N=992)	BUPERS <sup>c</sup> 1967 Survey (N=2,618)	BUPERS <sup>c</sup> 1968 Survey (N=2,926)	NPRDL <sup>d</sup> 1972 Survey (N=6,795)	AF I&E <sup>e</sup> 1949 Survey (N=709)
Reasons For Enlistment						
Learn a trade or skill valuable in civilian life	NA	19	NA	NA	NA	NA
Opportunity for advanced education	31	18	94	85	39	47
Opportunity for training	NA	NA	NA	NA	58	NA
To enlist in the service of my choice	NA	NA	NA	NA	NA	NA
For travel, excitement, and new experiences	12	11	91	81	40	12
To serve at the time of my choice	NA	NA	84	77	NA	NA
For increased maturity and self reliance	3	13	70	58	NA	4

(Table 6, page 2 of 3)

	ARMY			NAVY		AIR FORCE
	AF I&E <sup>a</sup> 1949 Survey (N=1,584)	RAC <sup>b</sup> E1-E3 1972 Survey (N=992)	BUPERS <sup>c</sup> 1967 Survey (N=2,618)	BUPERS <sup>c</sup> 1968 Survey (N=2,926)	NPRDL <sup>d</sup> 1972 Survey (N=6,795)	
Reasons For Enlistment						
To serve my country (patriotism)	4	17	89	79	32	18
Military career opportunities	NA	5	51	41	16	16
Navy career	NA	NA	60	48	27	NA
The overall benefits: pay, room & board, medical care, and training	19	NA	NA	NA	NA	12
Retirement benefits	2	NA	NA	NA	NA	2
To qualify for the G.I. Bill	NA	NA	NA	NA	NA	NA
To avoid the draft	10	NA	57	29	30	7
To leave personal problems behind	8	NA	25	20	NA	10



(Table 6, page 3 of 3)

Reasons For Enlistment	ARMY		NAVY		AIR FORCE	
	AF I&E <sup>a</sup> 1949 Survey (N=1,584)	RAC <sup>b</sup> EL-E3 1972 Survey (N=992)	BUPERS <sup>c</sup> 1967 Survey (N=2,618)	BUPERS <sup>c</sup> 1968 Survey (N=2,926)	NPRDL <sup>d</sup> 1972 Survey (N=6,795)	AF I&E <sup>e</sup> 1949 Survey (N=709)
All other reasons for enlistment	11	17				5
<b>Total Percent</b>	100	100				100

<sup>a</sup>Criterion Question: Tell in your own words **all** reasons you had for enlisting in the Army. Which one was the most important reason why you enlisted? (10 categories of reasons for enlistment were developed from these open ended responses.) (8)

<sup>b</sup>Criteria Question: Select the three most important items from the list: which influenced your decision to enter the Army. (List of 10 reasons.) (10)

<sup>c</sup>Criterion Question: What influence did each of the following (reasons) have on your decision to join the Navy? (List of 12 reasons.) (15, 16)

<sup>d</sup>Criterion Question: Did (one of 11 reasons for joining the Navy) have anything to do with making up your mind to join the Navy? (Percent responding "Yes, a lot.") (18)

<sup>e</sup>Criterion Question: Tell in your own words **all** reasons you had for enlisting in the Air Force. Which one was the most important reason why you enlisted? (10 categories of reasons for enlistment were developed from these open ended responses.) (9)

NA = not asked

Source: Fisher and Harford

men in their first enlistment period (shown in column 5 of Table 6) reinforced the 1969 results, finding that the opportunity for technical training was the most frequently endorsed (58%).

The Armed Forces Information and Education Division (AF I&E) surveyed 1,600 Army enlistees in 1949 and asked them to tell in their own words all their reasons for enlisting in the Army. There reasons were classified into 10 major categories listed in Table 7.

TABLE 7

AF I&E CATEGORIES OF REASONS FOR ENLISTMENT

1. Threat of forced service
2. Opportunity for vocational education and experience
3. Present financial considerations
4. Travel, adventure, new experiences
5. Escape from some uncomfortable civilian situation
6. Patriotic reasons
7. Need for self-discipline
8. Security of Army life
9. Military tradition in family
10. Miscellaneous classification

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SOURCE: Fisher and Harford

The Armed Forces Entrance and Examination Stations (AFEES) Survey, undertaken by the Department of Defense in 1970, used cross-sectional sample surveys. Table 3 gives the percentage of respondents who stated that a particular factor exerted a strong influence on their enlistment decision. The percentages are for the total sample of Army,

Navy, Marine Corps, and Air Force enlistees. (Fisher and Harford, 1974, pp. 8-9)

Fisher and Harford used data from the fiscal year 1972 AFEEES survey to identify categories of reasons for enlistment in the Army. Factor analysis and hierarchical clustering were used to analyze the data. Factor analysis was used to identify groups of reasons for enlistment. Cluster analysis was used to test for a comprehensive structure describing the reasons-for-enlistment clusters. The 1972 sample was divided into two parts to allow examination of differences in existing policy, particularly pay increases in the latter half of 1972 connected with the commencement of the all-volunteer force in 1973.

Four clusters of reasons given by the enlistees from the first half of 1972 were identified. The general groups of motives were:

- Career development
- Personal choice and convenience (i.e. service preference and choice of time to start active duty)
- Individual development and maturation
- Military benefits

Dimensions identified using factor analysis were similar to the groups identified by the cluster analysis, which lends confidence to the grouping of reasons outlined above. (Fisher and Harford, 1974, pp. 18-24)

Results of the cluster analysis and factor analysis for the second half of 1972 were virtually identical to those of

the first half of 1972. The study suggests that the findings above may be useful in packaging advertising to motivate young men to enlist in the Army. (Fisher and Harford, 1974, p. 29)

In 1974, Fisher, Orend and Rigg at the Human Resources Research Organization (HumRRO) studied patterns of endorsement to the enlistment incentives commonly used in the military. Data were taken from the Gilbert Youth Attitude Survey. The Gilbert Youth Attitude Survey was begun in 1971 under the sponsorship of the Department of Defense. The survey was conducted every six months and used to measure such things as attitude toward military service and endorsement of various enlistment incentives.

A correlational analysis and factor analysis were used to determine relationships between various enlistment incentives and the extent to which incentive factors could be grouped. The factor analysis was undertaken for different target market groups of the total youth population. The target groups were denoted as potential enlistees, non-enlistees, and potential Navy, Army, and Air Force enlistees.

The study also attempted to detect whether a common structure existed involving reasons for enlistment and enlistment incentives. ("Structure" is used here to indicate the nature and extent of relationships among incentives.) To accomplish this objective data on reasons

for enlisting and enlistment incentives were intercorrelated and factor analyzed to ascertain if common elements could be found from the two types of data.

Results from the correlation analysis generated four interpretable factors. They were labeled:

- Self-Determination (a measure of degree of personal independence desired)
- Vocational Training (degree of concern about obtaining technical training and learning a skill transferable to civilian life)
- Enlistment Bonuses (measure of tradeoff between length of enlistment and amount of cash bonus)
- General Education (degree of interest in receiving financial assistance for education in return for military service).

The factor structure study of 12 reasons for enlistment and the endorsement of incentives indicated that the two domains were independent of each other. The four factors found for incentives did not correspond with the factors generated for reasons for enlisting (Fisher, Orend, and Rigg, 1974, pp. 6-7). The finding of independence between the two areas was unexpected and no explanations, other than experimental design, were noted.

This study raised an important question about the nature of the causal relationship between enlistment incentives and the enlistment decision: Are potential enlistees attracted to the military because of the incentives or do enlistment incentives only reinforce the original decision to enlist? (Fisher, Orend, and Rigg, 1974, pp. 62-63)



Boesel, et. al., in a paper presented at the Annual Conference of the Military Testing Association in 1983, reviewed the major surveys that have been analyzed to determine enlistment motivators. They found that even in the days of the draft, first-termers had been motivated to join the military to take advantage of the skill training provided (Boesel, et. al., 1983, p. 188). Later surveys duplicated this finding and suggest that the desire to learn a skill is often expressed by the new recruit as a desire for self-improvement.

The DOD Surveys of Personnel Entering Military Service provide data on individuals who have just started active duty (officer and enlisted). Respondents were asked to choose their one most important reason for enlisting. Giesecke found a pronounced order effect among the most frequently chosen reasons for enlisting. TO BETTER MYSELF IN LIFE was the most frequently chosen reason for enlisting on Form 1, followed by SKILL TRAINING. The results for Form 2 were reversed, as was the order of the reasons on the form. As educational level increased, the appeal of skill training decreased. MONEY FOR COLLEGE was more important for those with up to two years of college, but sharply decreased for college graduates. Patriotism is a strong motivation to serve. It was the third most common reason chosen. (Boesel, et. al., 1983, pp. 189-190)

Geisecke's review of the major findings from the DoD Surveys of Personnel Entering Military Service was summarized as:

without any doubt, the main reason given for entering the Service was to obtain job training. This is true for all ages, races, sexes, branches of the Service and regions of the country. (Boesel, 1983)

Kim (1982) analyzed the Youth Cohort of the National Longitudinal Survey of Labor Force Experience (NLS). The NLS questionnaire has been completed annually since 1979 by a sample of youth age 14 to 22, and is sponsored by the Department of Labor, with support from the Department of Defense. Results from the 1980 NLS data indicate the importance of skill training, personal development, and money for college for the decision to join the military. (Boesel, et. al., 1983, pp. 190-191)

The Youth Attitude Tracking Survey (YATS), successor to the Gilbert Youth Attitude Surveys, is administered every fall to approximately 5,000 military-eligible males (a sample of females is also included). The 1981 Youth Attitude Tracking Survey (YATS) indicated an interesting dichotomy in perceived achievability of important job attributes in military versus civilian jobs. Using the 1981 YATS, Market Facts, Incorporated, divided the respondents into two groups, those with a positive propensity to enlist, and those who said they would not serve. The positive propensity group who were thinking seriously about enlisting felt that the military offered a high degree of security and

a job where training and advancement were available. The negative propensity group, who were unlikely to enlist, felt the opportunities for advancement and development were not as good in the military as in the civilian world. They also felt that job security and skill training were more likely to be found in the military than in a civilian job. (Boesel, et. al., pp. 188-190)

#### D. ANALYSIS OF INFLUENCES USING TARGET GROUPS

As the All-Volunteer Force has aged, research on what influences Americans to enlist has become more sophisticated. Several studies have been done which attempt to identify specific target groups so that recruiting efforts can be tailored to differences in the population of potential enlistees.

The Navy's perceived ability to meet a young man's vocational goals plays an important role in the decision process. Table 8 shows that among those who enlisted, 75 percent cited job training as important, and 47 percent cited educational benefits as a highly influential factor. Of those who did not enlist, 57 percent felt the educational benefits were too limited, and 40 percent thought they had more appealing job opportunities in the civilian job market. (See Table 9) Twenty-six percent of those who did not enlist saw the educational benefits as a positive factor, and 37 percent cited job training as a positive factor for

TABLE 8

POSITIVE FACTORS AFFECTING THE ENLISTMENT DECISION OF THOSE  
MEN WHO HAVE DECIDED TO ENLIST (STUDY I)

Navy Factors	Percentage of Individuals Citing as a Factor (Total N=53)
Job Training	75%
Travel	49
Educational Benefits	47
Financial/Security	32
Maturity	28
Sea/Ship Image	24
Draft	19
Guarantees	19
Buddy System	6
Patriotism	4
Military Life Style	2
<u>Personal Influences</u>	
Male Peers	60%
Father	49
Mother	45
Family in Navy	43
Other Relatives	36
Recruiter	18
Female Peers	13

---

Source: Glickman

TABLE 9

POSITIVE FACTORS AFFECTING THE ENLISTMENT DECISION OF THOSE  
MEN WHO HAVE DECIDED NOT TO ENLIST (STUDY I)

Navy Factors	Percentage of Individuals Citing as a Factor (Total N=53)
<hr/>	
Travel	38%
Job Training	37
Educational Benefits	26
Financial/Security	10
Sea/Ship Image	10
Draft	10
Situational Dissatisfaction	9
Guarantees	7
Maturity	7
Buddy System	5
Military Life Style	3
Patriotism	2
<u>Personal Influences</u>	
Father	26%
Male Peers	17
Family in Navy	17
Mother	10
Other Relatives	10
Recruiter	7
Female Peers	3

---

Source: Glickman



the military. All of the men who were interviewed were work-oriented, the main difference between those who joined and those who did not was their image of the Navy as a place to satisfy their career and educational goals. (Glickman, et. al., 1973, pp. 32-34)

Friedland and Little's analysis of the 1979 NLS used discriminant analysis to find characteristics which distinguished active duty military respondents from those who had talked to recruiters but had not enlisted, and those who had never approached a recruiter. A desire for skill training was the factor that most distinguished the white male military joiners from those not interested in the military. Educational aspirations clearly distinguished the group who had talked to a recruiter, but had not yet joined, from those already in the service. Those in the military had the greater desire for education and for training. A desire for self-improvement separated those in the military from those who were not interested, or who displayed some interest but had not yet joined. (Boesel, et. al., pp. 191-193)

Analysis of the 1980 NLS data by Kim (1982) found that desire for training and educational aspirations helped predict a positive decision to enlist. Those with high educational aspirations who were faced with joining the military or seeking civilian employment had a higher probability of enlisting than those who did not have a

desire to further their training or education. It was inferred that the need for money to go to college played a role in the decision to join the military. (Boesel, et. al., p. 191)

The 1981 Survey of Military Applicants analyzed by Rand found a definite relation between probability of enlisting and need to obtain money for further education. Table 10 shows that the greater the financial need, the more likely it was that high quality individuals would enlist. (Boesel, et. al., p. 191)

TABLE 10

ENLISTMENT RATE BY FINANCIAL NEED  
(HIGH QUALITY APPLICANTS)

	Additional Amount Needed to Continue Education				
	<u>\$0</u>	<u>\$1-1000</u>	<u>\$1001-2000</u>	<u>\$2001-3000</u>	<u>\$3000+</u>
Enlistment Rate	43%	52%	59%	60%	65%
(N)	(404)	(239)	(290)	(252)	(182)

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Source: Boesel, 1983

The Army Research Institute's 1982 and 1983 survey of Army recruits was analyzed by Elig, et al, to determine what motivated a high quality male recruit to enlist. Their findings were compared with the 1979 DoD survey, which was similar in purpose to the 1982 and 1983 survey.

From 1979 to 1982 motivation to receive money for college and escape from unemployment increased, while the motives to improve oneself and acquire skill training decreased. Chance for skill training and "to better myself" decreased from 1982 to 1983. ("Chance to better myself" refers to personal, not economic improvement.) The only motivator that increased in importance was the opportunity to earn more money in the military, compared to the civilian job market. Table 11 gives a comparison of reasons for enlisting in the Army in 1979, 1982, and 1983. (Elig, et. al., 1984, pp. 1-6)

Dale and Gilroy's work in 1983 found a strong correlation between unemployment rates and Army enlistment rates. While studying the effects of the business cycle on enlistment rates of young males they found that educational benefits were important to high quality males.

An individual's educational expectations play an important role in deciding what to do after leaving high school. Hosek and Peterson (1986) studied the two market segments from which most recruits come, the high school senior and the recent high school graduate. The two

TABLE 11

## 1979/1982/1983 COMPARISON OF MOST IMPORTANT REASONS FOR ENLISTMENT

WHICH ONE OF THESE REASONS IS YOUR MOST IMPORTANT REASON FOR ENLISTING?	1979 DoD SURVEY OF APRIL CONTRACTS	SURVEY OF ACCESSIONS			
		1982	SPRING 1983	1982	SUMMER 1983
CHANCE TO BETTER MYSELF (NOT MEASURED IN JULY-AUG 82)	39	30	25	--	--
TO GET TRAINED IN A SKILL	26	22	19	35	30
MONEY FOR A COLLEGE EDUCATION	7	15	16	20	17
TO SERVE MY COUNTRY	10	9	9	10	12
I WAS UNEMPLOYED	4	10	9	10	10
TO PROVE THAT I CAN MAKE IT	4	6	7	9	10
TO BE AWAY FROM HOME ON MY OWN	5	4	5	5	7
EARN MORE MONEY	1	2	7	4	6
TRAVEL (NOT MEASURED IN MAY-JUNE 82)	4	--	--	4	4
TO GET AWAY FROM A PERSONAL PROBLEM	1	1	2	2	2
FAMILY TRADITION TO SERVE	0.5	1	1	1	2

\*Regular Army, non-prior service enlistments only

Source: Elig

segments differed in their attitudes about military service when looked at with their educational expectations in mind. Graduates who expect more education and have high AFQT scores have a higher probability of enlisting than seniors with high AFQT scores. The graduates may be enlisting to take advantage of the educational incentives provided by the military. With increasing budget constraints it is not as easy to receive government aid for college. The military is an option for young males who cannot afford to attend college immediately after completing high school. Graduates who do not expect more education do not show this same pattern. They are less likely to enlist if they have high AFQT scores. Seniors, regardless of their educational expectations, have a lower likelihood of enlisting, the higher their AFQT scores. (Hosek and Peterson, 1986, pp. v-vi)

The Polich, et. al., study was designed to try to answer questions about cash incentives. An enlistment bonus experiment was conducted by Polich, et. al., from July 1982 through June 1984. They found that bonuses can be used to both attract more recruits and to lengthen the time high quality males are willing to serve. Bonuses are thought to be the most flexible of incentive options because they can be changed by the services, when necessary, to insure they are targeted to skill shortages as they occur. (Polich, et. al., 1986, pp. 1-50)



Educational benefits were held constant throughout the period of the above experiment. An earlier educational benefits test found that a 9 percent market expansion of high quality recruits could be expected with the implementation of the Army College Fund (Fernandez, 1982, p. 5). (The Army College Fund is an educational benefit which allows a high quality soldier, serving in a critical MOS, to contribute \$2700 to the fund and have as much as \$20,100 granted to him for educational purposes.)

#### E. THE INFLUENCE OF ADVERTISING

Mirelson studied Army advertising and other influences on a recruit's enlistment decision. A sample of 300 non-prior service recruits was asked to rank order a list of ten items, according to their influence on the decision to join the Army. Salary was the major influence for 25.3 percent. Security and education were also important. Advertising was not considered an influence. Results are listed in Table 12. (Mirelson, 1982, pp. 1-36)

Mirelson cited a Department of Defense (DOD) military advertising awareness project conducted from 1977 to 1980 which determined that recruits frequently remembered parts of military advertisements, but they had little influence on the decision to enlist (Mirelson, 1982, pp. 14-15). Mirelson's research found that 35 percent of the

TABLE 12

DISTRIBUTION OF RESPONSES FOR THE QUESTION:  
RANK ORDER THE MOST IMPORTANT INFLUENCE ON  
YOUR DECISION TO JOIN THE ARMY

RANK	ITEM	NUMBER	PERCENTAGE
1	Salary	76	25.3
2	Security	48	16.0
3	Education	44	14.7
4	Experience	42	14.0
5	Benefits	37	12.33
6	Training	30	10.0
7	Travel	13	4.33
8	Adventure	7	2.33
9	Challenge	3	0.10
10	Advertising	0	0.0
TOTAL		300	100.0

Source: Mirelson

recruits who saw or heard Army advertising before enlisting sought further information as a result of the advertising. Of the sample, 21 percent had decided to seek information about the military prior to seeing or hearing an advertisement (Mirelson, 1982, p. 61).

The remaining 44 percent remembered Army advertising, but had not sought information because of it. Because all of those sampled enlisted, it is assumed that the advertising "provided a direct stimulus-response action" and that they enlisted the first time they met with a recruiter after the advertisement, or other variables lead to their enlistment. Other influences, such as parents, teachers, and friends in the service, may have motivated the recruit to enlist as a result of being favorably impressed by advertising. (Mirelson, 1982, pp. 61-63)

#### F. ENLISTMENT INCENTIVES USED IN OTHER COUNTRIES

Joy's 1979 study of enlistment incentives reported that studies prior to his found the major reasons for serving in the U.S. military were the opportunities for job training and educational benefits. A Secretary of Defense report requested by Congress in 1979 stated that increased educational benefits were most likely to increase enlistments. The majority of studies cited by Joy found educational incentives to be more popular than cash bonuses. (Joy, 1979, pp. 1-23)

Of the 15 NATO allies, only Great Britain, Canada, and the United States depend on volunteers to meet their military personnel requirements. (Toomepuu, 1986, p.3) Other countries, for example Israel, rely on national service requirements to fill their military needs. Several countries in the free world maintain assorted benefit packages to compensate for the demands made on an individual while he is serving in the military.

This study looked at post-enlistment training programs of four countries, Israel, West Germany, Canada, and Britain. The Israeli program attempts to provide education and training to its service members (who are primarily conscripts) while they are on active duty. The program is fully funded by the Ministries of Defense and Labor. Upon completion of active duty and training, individuals are placed in jobs. The Israeli government feels the program assists in "settling underdeveloped areas of the country" and reduces unemployment. (Joy, 1979, pp. 38-39)

Canada's program was designed to assist those making the transition from military to civilian life. Active duty military are provided counseling, and any training initiated is done on off duty time. Retirees with at least 20 years of service have the opportunity to attend training programs fulltime for a year. Canada Manpower (similar to the US Department of Labor) pays for the training and gives a

living allowance. Job placement services are provided to all who have served on active duty. (Joy, 1979, pp. 39-42)

The British Resettlement Service is Britain's program for officers and enlisted personnel who have served honorably for at least three years. Such individuals are entitled to counseling, training, and job referrals. Free education is provided for active duty military on their off duty time. Everyone is eligible to participate in a training program during his last month in the service, provided he can be released from his military duties. (Joy, 1979, pp. 42-44)

The West German government provides a similar program, primarily for soldiers who have served six to fifteen years on active duty. Vocational counseling is given to individuals virtually from the time they enter the service until they complete their enlistment. Training is made available while the soldier is still on active duty. More schooling is provided after leaving the military, the amount of which is determined by the recipient's total time in service. Job placement is also provided. (Joy, 1979, pp. 44-47)

#### G. SUMMARY

The continuous debate on the viability of the All-Volunteer Force has prompted much research on the enlistment motivations of American youth. A desire to better one's self, whether it be through higher education or skill



training, has predominated the reasons for voluntary enlistment. Findings from the analysis of target populations for military service impact recruiting policy and budget decisions within the Department of Defense.

Congress is willing to authorize money to the services for enlistment bonuses and educational benefits if they are convinced that the need for high quality recruits is not being met with the existing incentive programs. Cash bonuses represent the easiest area of the military compensation package to change. There is considerable debate over whether cash bonuses awarded to high quality males who enlist in military occupational specialties (MOS) with personnel shortages are better than educational benefits. Policy decisions made by Congress and the Department of Defense need to be backed up with knowledge about what motivates potential recruits. With fewer dollars available to be devoted to the recruiting efforts within the Department of Defense (DoD), it is essential that they be targeted to best fill the military's requirements for quantity **and** quality. The following chapter will outline the methodology employed in this thesis to analyze what influenced 1985 active duty Army recruits to join the service. Special emphasis will be placed on the differences, if any, between what motivates high quality recruits compared to a lower quality recruits.

### III. DESCRIPTION OF DATA AND METHODOLOGY

#### A. RESEARCH OBJECTIVES

The objective of this research is to identify differences in motivators for regular Army enlistment between Upper Test Score Category (TSC) enlistees and Lower TSC enlistees. For this purpose, Upper TSC enlistees will be taken as enlistees scoring on the AFQT portion of the ASVAB above the expected population mean (mental group Categories I-III A). Those scoring below the expected population mean will be designated Lower TSC enlistees. Those respondents who had less than a high school diploma were excluded from the analysis as they constituted less than 8 percent of the sample. Also, the scope of this study does not allow the examination of the differences in educational level in addition to the differences in mental group (as determined by scores on the AFQT.)

#### B. THE NEW RECRUIT SURVEY

##### 1. History and Administration of the Survey

The data to be used for this study on the relationship of recruit quality to military enlistment influences are from the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) Summer 1985 Survey of Army Recruits. The survey is part of a series familiarly

known as the New Recruit Surveys (NRS). The NRS were originated in 1982 to provide information about the demographics and motivations of Army recruits at the beginning of their service commitment.

The 1982 and 1983 NRS were commissioned by the Army Deputy Chief of Staff for Personnel. The 1984 and 1985 Surveys were sponsored by the Army Recruiting Command. The exact content and focus of each survey has varied but the objectives of the NRS have remained constant (Army Research Institute, 1986, p. v): to find out who is enlisting and why; to gain information on how to target recruiting resources to increase the number of high quality enlistments; to determine why men and women join the Army and their propensity to reenlist; and to document which advertising and recruiting practices are successful.

Surveys were administered at eight Army Reception Stations located on Army bases that conduct recruit training. Initial recruit processing is done at the Reception Stations. The NRS was administered in group settings prior to the recruits being sent to their training companies in the field to begin basic training. The survey was self-administered and respondents were instructed to answer directly on the survey sheet.

The Summer 1985 Survey was administered from June through September of 1985. A total of 7,220 new active duty recruits completed the survey. Less than one percent of

those surveyed had prior military service. (Respondents with prior service experience were excluded from the subsequent analysis.) A modified Latin Square design was used to randomize the selection of survey weeks across all eight Reception Stations. Three forms of the survey were administered to active duty recruits in 1985. Each form asked several questions that have been used in previous New Recruit Surveys. New questions relating to such areas as joint advertising and high school academic program were asked on only one or two of the survey forms rather than all three. Active duty recruits are referred to as Regular Army (RA), as opposed to the Army Reserve recruits. The Regular Army recruits had an equal chance of receiving Form A, B, or C.

## 2. Research Sample

All of the survey respondents were between the ages of 17 and 34 when they accessed into the Army. Less than 3.5 percent of the original sample were older than age 24. Due to the small percentage of respondents 25 and older, and the low propensity for men and women in this age group to join the military, the subsequent analyses included only 17 to 24 year olds.

Of the restricted sample of 17 to 24 year old high school graduates, approximately 3 percent (175) of the total sample consisted of Hispanics and another 3 percent (197) were classified as "Other" race/ethnic group (which included

Asians and American Indians.) Because the number of Hispanics and Others was too small to yield any significant results, the present study includes only the respondents identified as white or black on the ethnicity variable. The final sample is composed of 4,544 whites (79 percent) and 1,208 blacks (21 percent).

The analysis will be undertaken using the 5,752 respondents who are Non-prior Service (NPS) high school diploma graduates between the ages of 17 and 24, and who belong to the white or black racial groups. The final group has 4,822 males (84 percent of the total sample) and 930 (16 percent) females. In Fiscal Year 1985, of the total Army accessions, only 13 percent were women. The high percentage of females in this survey is probably due to the time frame in which the survey was given (June through September 1985). Of the enlistees in this sample, 75 percent entered just after graduating from high school.

Most of the recruits are teenagers: 16.5 percent are 17; 53 percent are 18; and 15 percent are 19 years old. Only three percent of the respondents have more than a high school education. Of the group that will be studied, only four percent are married. Table 13 gives a more complete account of the demographic characteristics of the sample.

### 3. Candidate Demographic Variables

Data from the New Recruit Survey (NRS) were selected for analysis based on the research models described in the



TABLE 13  
 DEMOGRAPHIC CHARACTERISTICS OF  
 NON-PRIOR SERVICE HIGH SCHOOL DIPLOMA GRADUATES  
 FROM THE 1985 NEW RECRUIT SURVEY

(Unweighted N and Percentages)

	Upper TSC	Lower TSC
Total Sample (N=5752)	65.2%	34.8%
Race:		
White (N=4544)	71.5%	28.5%
Black (N=1208)	41.1%	58.9%
Gender:		
Male (N=4822)	64.3%	35.7%
Female(N=930)	69.8%	30.2%
Race by Gender:		
White Males (N=3936)	70.2%	29.8%
White Females (N=608)	80.3%	19.7%
Black Males (N=886)	37.9%	62.1%
Black Females (N=322)	50.0%	50.0%

(Table 13 continued)

	Upper TSC	Lower TSC
Age at Accession:		
17 (N=949)	65.3%	34.7%
18 (N=3025)	64.7%	35.3%
19 (N=880)	55.1%	44.9%
20 (N=350)	68.9%	31.1%
21-24 (N=548)	81.2%	18.8%
Years Since High School Graduation:		
0 (N=4323)	61.8%	38.2%
1 (N=447)	73.2%	26.8%
2 (N=307)	75.9%	24.1%
3 (N=183)	74.9%	25.1%
4 (N=127)	85.0%	15.0%
5 (N=129)	86.0%	14.0%
6 (N=74)	79.7%	20.3%
Recruiting Brigade:		
NE (N=1350)	65.2%	34.8%
SE (N=1206)	59.0%	41.0%
SW (N=778)	63.0%	37.0%
MW (N=1693)	66.6%	33.4%
WEST (N=725)	74.3%	25.7%
Marital Status:		
Not Married (N=5507)	65.0%	35.0%
Married (N=242)	69.4%	30.6%

literature review in the previous chapter. Candidate demographic variables for analysis include: (1) race and gender, (2) age at accession, (3) marital status, and (4) recruiting region. Demographic information was taken from the enlistment record of each respondent and added to the survey data base. (See Table 13 for demographic statistics.)

#### 4. Candidate Influence Variables

Questions which relate to factors thought to be influences on the enlistment decision were identified for investigation. The New Recruit Survey included a series of questions asking the respondent to rate how important a given reason was to the decision to enlist. Several of these questions asked about factors that have been shown in previous research to be related to self-improvement. Recruits are generally interested in bettering themselves and see the military as a way to achieve that end. This thesis will focus on those variables that may have significant impact on recruiting policy and the military budget.

Questions which provide information on benefits such as the educational benefits and skill training offered to soldiers, as well as compensation, including salary and bonuses, will be analyzed. Personal attitudes about the military are formed by exposure to military advertising and military recruiters. Variables relating to each of these

areas were chosen based on the hypothesis that they impact on the decision to enlist. The three groups of influences: economic returns to the recruit; recruiters; and military advertising are particularly important because of their policy implications in the Army.

#### C. RESEARCH HYPOTHESES AND METHODOLOGY

An investigation of what led Army enlistees to commit to at least a two year period of active duty will be undertaken to test how the Upper and Lower Test Score Category (TSC) recruits differ. The following demographic factors, which have an association with mental ability, will be used in the analyses: gender, race, age at accession, and region of origin.

Influence variables will be studied for possible differences between each quality group. They will also be tabulated by race and gender within the Upper and Lower Test Score Categories. Differences in the characteristics of the quality classifications within each race/gender subgroup, with respect to the influence variables, will be described.

It is hypothesized that Upper and Lower TSC soldiers have different motives for joining the Army and are influenced to serve by significantly different factors. Principle components analysis will be undertaken to attempt to identify a basic structure of enlistment motives. Principal components analysis will be used to separate the large number of candidate variables into a smaller number of

independent components. Components will be separately determined and compared for the two target groups of Upper TSC and Lower TSC enlistees. Factor scores developed from the influences on the enlistment decision for the total sample, for white males, for black males, and for females, will be used in discriminant analysis when the classifications resulting from the principal components analysis represent identifiable interrelationships or patterns in the data.

Discriminant analysis will be performed on the survey sample using the Test Score Category as the dependent (or grouping) variable. Separate analyses will be undertaken for the following demographic groups: males, females, white males, and black males. Discriminant analysis is a procedure used to discriminate between populations, in this case Upper and Lower TSC groups. The independent variables for the discriminant analyses will be the previously selected influence variables and demographic variables. Chapter IV will discuss the results of the analysis of the New Recruit Survey.



#### IV. ANALYSIS

##### A. UPPER AND LOWER TSC DEMOGRAPHICS

Table 13 gives the percentages of Upper and Lower TSC recruits for the demographic groups discussed below. Of the Upper Test Score Category (TSC) respondents, a larger percentage of females (70 percent) than males (65 percent) had scores in the upper half of the AFQT. This is probably due to the higher competition among female applicants for Army jobs. Recruiters are generally able to be more selective with female applicants. The supply of females desiring to join the Army relative to the demand is greater than that for males.

Over half (56.5 percent) of the total sample consists of Upper TSC whites. Of the whites, 71.5 percent scored in the Upper TSC. More than half of the blacks (59 percent) scored in the Lower TSC. (See Table 13.)

Research has shown that scores on the ASVAB do improve as the individual gets older. Hence, ASVAB test scores may not reflect the same distribution from the pool of older potential enlistees. As the age of the NRS respondents increased, average scores on the AFQT increased. Determination of how much of this increase is due to age, and how much to a larger draw out of Upper TSC for older

enlistees, is beyond the scope of this thesis. Only the 19 year olds did not follow this pattern, with 55 percent scoring in the Upper TSC, compared to 65 percent of the 17 and 18 year olds. Of the 20 year olds, 69 percent scored in the Upper category, and 81 percent of the 21 to 24 year olds scored in the Upper TSC. The 10 percent decrease in Upper TSC enlistees for the 19 year olds compared to those younger may be an indication that higher quality men and women (as measured by Test Score Category) may already be involved in other pursuits at this juncture in their lives. The 19 year olds who joined the Army in 1985 may have wanted to wait a while after high school before making any long term commitments such as that required by the Army. The majority of the 19 year olds (55.5 percent) were 1985 high school graduates. It is possible that, because they are on average older than the average high school graduate, some may have had difficulty academically and took more than 12 years to complete their education.

Less than 3 percent of those surveyed had more than a high school education. Of that 3 percent, 90 percent scored in the Upper TSC. Only 32 soldiers in the sample of 5,752 had an Associate degree, and 64 had a Bachelors degree or higher. Just under one percent said they had been in college when they signed their contracts to go on active duty.

The Army Recruiting Command divides the country into five geographic regions which are referred to as recruiting brigades. For each survey respondent, region of origin, or point of initial processing into the Army, is recorded as one of the Army recruiting brigades. (Table 14 lists the major cities in each recruiting brigade.) Cross tabulations show that if the enlistee is from the Southeast (SE) region s/he is more likely to score low on the AFQT than if s/he were from any other region. The WEST region shows the reverse pattern. The Profile of American Youth Survey (Office of the Assistant Secretary of Defense, 1984, p. 148) found that AFQT scores were related to socioeconomic and subcultural differences. The differences in the representation of quality groups by region may be a reflection of the quality of education, urban-rural background, and/or the economic status of different areas in the United States. (See Table 14 for specific details about the demographic characteristics of the sample.)

The majority (96 percent) of the sample were not married, which includes divorced respondents. Sixty-five percent of those who were not married were Upper TSC recruits. Of those who were married, 69 percent scored in the Upper TSC.

TABLE 14

## MAJOR CITIES IN ARMY RECRUITING BRIGADES

## NORTHEAST (NE)

Albany	Long Island
Baltimore	Newburgh
Boston	Philadelphia
Concord	Philadelphia
Harrisburg	Pittsburgh
New Haven	Syracuse

## SOUTHEAST (SE)

Atlanta	Miami
Beckley	Montgomery
Charlotte	Nashville
Columbia	Raleigh
Jacksonville	Richmond
Louisville	San Juan

## SOUTHWEST (SW)

Albuquerque	Kansas City
Dallas	Little Rock
Denver	New Orleans
Houston	Oklahoma City
Jackson	San Antonio

## MIDWEST (MW)

Chicago	Lansing
Cincinnati	Milwaukee
Cleveland	Minneapolis
Columbus	Omaha
Des Moines	Peoria
Detroit	St Louis

## WEST

San Francisco	Sacramento
Honolulu	Salt Lake City
Los Angeles	Santa Ana
Phoenix	Seattle
Portland	

## B. INFLUENCE VARIABLES

### 1. Economic Variables

TABLE 15

#### SIGNIFICANCE OF DIFFERENCES BY QUALITY GROUP ECONOMIC VARIABLES

Economic Variable	Total Sample	Females	Males	Black Males	White Males
a. No ACF for MOS	*	*	*		*
b. No 2-Year Option	*		*		*
c. Cash Bonus	*	*	*	*	*
d. No Bonus for MOS	**		*	*	*
e. Unemployment	*	*	*		*
f. Earning More Money	*		*		*
g. Skill Training	*	**	*	**	*
h. Money for College	*	*	*	*	*
i. Money for Vo/Tech	*	**	*	**	*
j. Retirement Benefits	*		*		*
k. Fringe Benefits			**	**	
l. Better Job	*		*		*
m. Participation in VEAP/GI Bill	*	*	*		*

\* = Significant at .01

\*\* = Significant at .05



a. No Army College Fund (ACF) for MOS (Appendix B, Table B-1)

Lower TSC white males and females were the most likely to say that they would stay in the same job assignment even if there were no ACF (58 percent and 57 percent, respectively.) More Lower TSC white and black males than Upper TSC said that they would sign up for a different job. Upper TSC males (26 percent whites and 35 percent blacks) were more likely to indicate that they would only sign up for a different MOS if it paid a cash bonus. Upper TSC females (25.5 percent) were more than twice as likely to indicate this than Lower TSC females (11 percent.) Of those who responded that they would not have enlisted in the Army at all, only the white males showed substantial differences for the quality groups with 22 percent of the Upper TSC soldiers saying they would have joined the Army compared to 16 percent of the Lower TSC group. The Lower TSC respondents have fewer employment options available to them both inside the Army and in the civilian world and this is reflected in their answers. (Chi Square significant at  $p = .01$  for all groups except black males.)

b. No Two Year Enlistment Term Option (Table B-2)

Of those who checked that they would have signed up for the same job even if there were no two year option, only the white males show a distinction between the quality groups, with 58.5 percent of the Lower TSC and 40 percent of the Upper TSC marking this choice. White males showed the

greatest difference between TSC groups for those who said they would not enlist. Forty-five percent of the Upper TSC compared to 30 percent of the Lower TSC white males said they would not have enlisted without the two year option. A higher percentage of Upper TSC respondents checked this in all groups. This may be an indication that the Upper TSC soldiers are not interested in making the Army a career, but see it as a short term commitment before moving on to some other work. (Chi Square significant at  $p = .01$  for all groups except females and black males.)

c. Cash Bonus for MOS (Table B-3)

When asked if they had signed up for a job that paid a cash bonus, a substantial number of the respondents said they did not know. A larger percentage of the Lower TSC group (31 percent) than the Upper TSC (9 percent) indicated that they did not know if their MOS gave an enlistment bonus. A greater percentage of the Upper TSC females (64.5 percent) said they did not receive a bonus compared to the Lower TSC females (59 percent). For those who reported that they had received a cash bonus, 44 percent were Upper TSC and 13 percent were Lower TSC soldiers. (Chi Square significant at  $p = .01$  for all groups.)

d. Effect of No Cash Bonus<sup>1</sup> (Table B-4)

More of the Lower TSC (67 percent) respondents than Upper TSC (54 percent) said they would have signed up

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<sup>1</sup> Recruits scoring in AFQT Category IIIB (part of the Lower TSC) were eligible for this incentive because their AFQT was based on WWII norms.

for the same job even if it did not pay a cash bonus. Upper TSC black males (30 percent) were more likely than Upper TSC white males (21.5 percent) to say they would have signed up for a different job that paid a bonus. Only 11 percent of the total sample said they would not have enlisted in the Army at all if they had not received a cash bonus. There was little difference between the quality groups on this response. (Chi Square significant at  $p = .01$  for all groups except females.)

e. Unemployment (Table B-5)

The inability to find a job was a very important reason for enlisting for 13 percent of the respondents. Black males were not differentiated by TSC in the importance they attached to unemployment as their reason for enlisting. Of the white males, 18 percent of the Lower TSC said that unemployment was very important compared to only 10 percent of the Upper TSC. The females in the Upper TSC (65.5 percent) were more likely to say that unemployment was not important than the Lower TSC women, 55 percent of whom said that unemployment was not a consideration in their enlistment decision. The white males showed this same pattern, with the Lower TSC men less likely to say that unemployment was not important. (Chi Square significant at  $p = .01$  for all groups except black males.)

f. Earn More Money (Table B-6)

The chance to earn more money in the Army than in the civilian world was very important to 28 percent of the respondents. Of the white males, 24.5 percent of the Upper TSC, compared to 31.5 percent of the Lower TSC said making more money was very important to their enlistment decision. Black males and females showed no significant differences by quality group in their responses to this question. (Chi Square significant at  $p = .01$  for all groups except females and black males.)

g. Importance of Skill Training (Table B-7)

Lower TSC soldiers were more likely to say that receiving skill training that would be useful in the civilian world was very important to them. Many more of the Upper TSC males (26.5 percent) said that skill training was not important than did the Lower TSC males (16 percent). Females who said skill training was not important did not show a difference between quality groups. (Chi Square significant at  $p = .01$  for all groups except females [ $p = .05$ ] and black males [ $p = .05$ ].)

h. Money for College Education (Table B-8)

Of the total sample, 24 percent said they would not have enlisted except for the fact that they wanted to obtain money for college. Thirty percent of the Upper TSC respondents indicated they would not have enlisted except for college money, compared to only 13 percent of the Lower



TSC. More of the Lower TSC respondents (33 percent) were likely to say that money for college was not important to their enlistment decision than Upper TSC (15 percent). The patterns for the Upper TSC compared to the Lower were similar for the different race/gender groups. (Chi Square significant at  $p = .01$  for all groups.)

i. Money for Vocational Technical School (Table B-9)

The Upper and Lower TSC did not diverge as much in their responses to this question as they did in their responses to the question about money for college. For black males, 43 percent of the Upper TSC and 36 percent of the Lower TSC said that money for vocational school was very important. Only 29 percent of the Upper TSC black males said that this was not important compared to 36 percent of the Upper TSC white males. More of the Lower TSC males said this was not important, while for females this was reversed, with more of the Upper TSC females saying that money for vocational/technical school was not important to them. Women were more apt to respond neutrally to this question than males, which may be a reflection of the fact that technical jobs are predominantly filled by males. (Chi Square significant at  $p = .01$  for all groups except females [ $p = .05$ ] and black males [ $p = .05$ ].)

j. Retirement Benefits (Table B-10)

Except for black males, respondents in the Lower TSC are much more likely to say that military retirement



benefits were very important to the enlistment decision. Upper and Lower TSC black males were as likely to say that retirement benefits were very important as they were to say retirement benefits were not important. Of the white males, 37 percent of the Lower TSC group said retirement benefits were very important compared to only 27 percent of the Upper TSC group. Twenty-five percent of Lower TSC females said retirement benefits were very important, only 18.5 percent of the Upper TSC women said the same. In the total sample, 29 percent said that retirement benefits were very important while 37 percent said they were not important to the enlistment decision. Because the majority of the respondents are teenagers, and this is their first full time job commitment, it is unlikely that many of them are thinking seriously about retirement benefits. Nevertheless, almost a third stated that retirement benefits were very important in their decision to enlist. With the current debates in Congress about the military retirement system it is possible that new recruits are aware that major changes are being considered. (Chi Square significant at  $p = .01$  except females and black males.)

k. Fringe Benefits (Table B-11)

When asked how important such fringe benefits as medical care and low prices in military stores were to their decision to enlist, 35 percent of the respondents said fringe benefits were very important, and 22 percent said

that they were not important. Lower TSC males (38 percent) were more likely to say that fringe benefits were very important than Upper TSC males (32 percent). Females were most likely to respond that fringe benefits were only somewhat important (44 percent). It is possible that males are more experienced in the working world and have thought more about such things as the cost of medical insurance and dental care, and about the monetary value of such benefits in a job. ( Chi Square significant at  $p = .05$  for all groups except females and white males.)

1. Opportunity for a Better Job (Table B-12)

Although the majority of the respondents have been attending school rather than working full time, 37 percent said that obtaining a better job than the one they had was very important to their decision to enlist. Almost half of the females (46 percent) said that this was very important. Of the Lower TSC females, 49 percent said that a better job was very important, compared to 43 percent of the Lower TSC white males, and 41 percent of the Lower TSC black males. The Upper TSC respondents (44 percent) were more likely to say this was not important than the Lower TSC group (35 percent). This may occur because the Upper TSC group has more employment opportunities than the Lower TSC group. (Chi Square significant at  $p = .01$  for all groups except females and black males.)

m. Participation in VEAP or New GI Bill (Table B-13)

Depending on the date that the respondents signed their enlistment contracts, they were eligible for either the Veteran's Educational Assistance Program (VEAP) or the New GI Bill. (The New GI Bill replaced VEAP in July, 1985.) Both are contributory educational benefits, meaning that the recipient of the benefit must agree to invest part of his or her earnings in order to receive any money for future education. Recruits are asked to decide if they want to participate shortly after they enlist on active duty, so that allotments can be taken out of their monthly pay immediately. Of the Upper TSC respondents, 70 percent said that they were participating in one of the programs, while only 43 percent of the Lower TSC respondents said they were participating. Females in the Lower TSC were more likely to say they were participating (48 percent) than Lower TSC males (42 percent). One criticism of educational benefits is that they induce soldiers to leave the service after one enlistment. It is possible that the females have a higher percentage rate of participation because they are more likely to be thinking of other potential careers, since there are more opportunities for men in the Army than there are for women. (Chi Square significant at  $p = .01$  for all groups except black males.)

## 2. Military Advertising Variables

TABLE 16

SIGNIFICANCE OF DIFFERENCES BY QUALITY GROUP  
ADVERTISING VARIABLES

Advertising Variable	Total Sample	Females	Males	Black Males	White Males
a. Television	*	*	*	*	*
b. Magazines	*	**	*	*	*
c. Radio	*	*	*		*
d. Want Ads		*		*	**
e. Other Newspaper Ads	*		*		
f. Mail		*		*	*
g. Recruiting Station	*		*		*
h. School	*	**	**		
i. Friend				**	
j. Respond to AD	*	*	*		**

\* = Significant at .01

\*\* = Significant at .05

### a. Television (Appendix C, Table C-1)

The majority of respondents have been exposed to Army commercials on television. Of the total sample, 84 percent remembered seeing military advertising on television. White males and females showed similar patterns

between the quality groups, with 88 percent of the Upper TSC women and 89 percent of the Upper TSC white men remembering television advertising. Eighty-five percent of the Upper TSC black males checked television. The Lower TSC groups checked television at a rate about thirteen percent less often than their respective Upper TSC groups. This is consistent with the assumption that better memory is associated with greater intelligence. Hence, the higher recall of the Upper TSC group may be attributed to Test Score Category rather than to the race or sex of the respondents. (Chi Square significant at  $p = .01$  for all groups.)

b. Magazines (Table C-2)

Upper TSC white males (79 percent) recall Army magazine advertisements slightly more frequently than Upper TSC females (74 percent) and Upper TSC black males (72.5 percent). Only 59 percent of the Lower TSC black males remembered magazine advertisements compared to 64 percent of the females and 65.5 percent of the white males in the Lower TSC. The Army advertises in several of the nation's popular magazines, including a few that would generally be considered men's magazines, but it does not advertise in those commonly referred to as women's magazines. Nevertheless, 71 percent of the women and 73 percent of the men recalled magazine advertisements. (Chi Square



significant at  $p = .01$  for all groups except females [ $p = .05$ ].)

c. Radio (Table C-3)

Recall of military advertising on the radio was checked by 59 percent of the total sample. Females checked this more often (63 percent) than white males (60 percent) and black males checked it the least (48.5 percent). The difference in recall between Upper and Lower TSC for the black males was small, indicating that there was no relationship between recall of radio advertising and TSC for black males. The females and white males showed a similar pattern, with 65 percent of the Upper TSC white males indicating that they recalled radio advertising, compared to 49 percent of the Lower TSC white males. Upper TSC females had a 69 percent recall rate for radio advertising, while the rate for Lower TSC females was 48 percent. (Chi Square significant at  $p = .01$  for all groups except black males.)

d. Help Wanted Ads (Table C-4)

Only 11 percent of the entire sample saw Army ads in the Help Wanted section of the newspaper. There was no relationship between TSC and recall of Army want ads for females or black males. Significant results for this variable are more a function of the size of the sample (with the larger groups showing significance when the smaller subgroups do not), than of the differences in how the quality groups recalled advertising in newspaper help wanted

ads. (Chi Square significant at  $p = .05$  for all groups except females and black males.)

e. Other Newspaper Ads (Table C-5)

Only 11 percent of the sample remembered seeing Army advertising in parts of the newspaper other than the want ads. Lower TSC females were the least likely to check this, with only 5 percent indicating that they remember such ads. The Upper TSC respondents in the three market groups recalled newspaper advertising at a higher rate than the Lower TSC respondents, but the highest rate was still only 15 percent (for the Upper TSC black males). The majority of the sample consists of teenagers and it is possible that they do not read the newspaper as much as older adults. (Chi Square significant at  $p = .01$  for the total sample and males.)

f. Mail (Table C-6)

Of the total sample, 70 percent remembered advertising they received in the mail. Army advertising is directed at male high school seniors and so it is not surprising that females were much less likely to remember mail advertising (54 percent) than males (73 percent). Recall for the females was not related to TSC. For black males and white males, the differences between the quality groups were not substantial. (Chi Square significant at  $p = .01$  for all groups except females and black males.)

g. Army Recruiting Station (Table C-7)

The question about recalling Army advertising in a recruiting station would seem to require nearly a one hundred percent positive response, considering that all of the survey respondents enlisted in the Army, but the results suggest that not all recruits had contact with a recruiter in his or her office. (It hardly seems possible that there would be a recruiting office without advertising. The assumption is that those 36 percent who did not recall seeing such advertising were unlikely to have visited a recruiting station.) Only white males show differences in recall by TSC, with 67 percent of the Upper TSC white males checking that they saw or heard advertising in an Army recruiting station, compared to 59 percent of the Lower TSC white males. (Chi Square significant at  $p = .01$  for all groups except females and black males.)

h. Advertising at School (Table C-8)

The majority of the new recruits (69 percent) recalled seeing or hearing Army advertising or promotional material at school. The differences in recall between the quality groups were about the same for the white and black males, with the Upper TSC respondents remembering school advertising more than the Lower TSC respondents. Black males in both quality groups were more likely to remember seeing or hearing about the Army at school than the white males (77 percent and 70 percent, respectively). Females

showed a greater difference between the quality groups, with 71 percent of the Upper TSC females compared to only 61.5 percent of the Lower TSC females indicating that they recalled seeing or hearing Army advertising at school. (Chi Square significant at  $p = .05$  for all groups except black males and white males.)

i. Advertising From a Friend (Table C-9)

Only 38.5 percent of the sample said that a friend played some role in the advertising they had seen. Upper TSC respondents were slightly more likely to say that friends were associated with recall of Army advertising, with the divergence between the Upper TSC black males (49 percent) and the Lower TSC black males (39 percent) being the greatest. Overall it appears that the members of this survey group were not highly influenced by friends who shared Army advertising materials with the respondents. (Chi Square significant at  $p = .05$  for black males only.)

j. Response to Army Advertising (Table C-10)

When asked if they responded to any Army advertising, the majority (74.5 percent) said yes. Upper TSC recruits were less likely to say they had responded to advertising than Lower TSC recruits. Of those who said they responded to advertising, 72 percent were Upper TSC recruits and 79.5 percent were Lower TSC. (Chi Square significant at  $p = .01$  for all groups except white males [ $p = .05$ ] and black males.)

### 3. Recruiter Variables

TABLE 17

SIGNIFICANCE OF DIFFERENCES BY QUALITY GROUP  
RECRUITER VARIABLES

Recruiter Variable	Total Sample	Females	Males	Black Males	White Males
a. Recruiter Made First Contact					
b. Amount of Recruiter Contact in DEP					
c. Satisfaction w/ Recruiter Contact	*		*		*

\* = Significant at .01

a. Recruiter Made First Contact (Appendix D, Table D-1)

Respondents were asked how important having a recruiter contact them was to their decision to obtain more information from the Army recruiter. Of all the respondents, 60 percent said that the fact that the recruiter contacted them first was very important or that they would not have talked to an Army recruiter at all if not for this reason. There was no predictable relationship between the response to this question and the quality



groups. Females were the most likely to say that the recruiter's initial contact was very important to them. Females were also least likely to say that this was not important to their decision to talk to an Army recruiter. This may be because the military is still not a profession that provides many role models for women. The media tends to emphasize that the military can turn a boy into a "macho" strong man, but it does not portray women in the military quite so positively. (Chi Square not significant for any of the groups.)

b. Amount of Recruiter Contact (Table D-2)

Less than 2 percent of the respondents were not in the Delayed Entry Program (DEP), which allows a person to sign a contract up to a year in advance of beginning his/her active duty obligation. The majority of the recruits (61 percent) said they had contact with their recruiter weekly or every two weeks. Females were most likely to say that they had contact with the recruiter every few days, with 25 percent checking this response compared to 16 percent of the males. The responses for the Upper and Lower TSC recruits were very similar. The question did not specify who initiated the contact so no conclusions can be drawn about which party, the recruit or the recruiter, was making the effort to communicate. (Chi Square not significant for any of the groups.)

c. Satisfaction with Recruiter Contact (Table D-3)

Upper TSC white males (70 percent) and females (71 percent) were most likely to say that the amount of contact they had with their individual recruiters was about right. Lower TSC black males (51 percent) were least likely to say that the contact was about the right amount. More black males in both quality groups said they would have liked more contact (28 percent Lower TSC, 24 percent Upper TSC) than less contact (21 percent Lower TSC, 17 percent Upper TSC). Upper TSC females and white males were almost equally likely to say they thought the amount of contact was about right (approximately 70 percent for both). Lower TSC females (64 percent) were more apt to respond that the contact was about right than Lower TSC white males (59 percent) or black males (51 percent). Lower TSC black males were the most likely to say that the amount of contact was more than they wanted. No readily apparent patterns for the quality groups emerge from this question. (Chi Square significant at  $p = .01$  for all groups except females and black males.)

C. PRINCIPAL COMPONENTS ANALYSIS

Principal components analysis was undertaken in an attempt to combine variables into identifiable factors within the three major groups of economic, advertising, and recruiter influences on the enlistment decision. The principal components for the two quality groups within each

of the demographic groups are analyzed in the following discussion. The tables in Appendix E contain information on the factor loadings that resulted from the principal components analysis of the influence variables.

#### 1. Economic Principal Components

In order to keep the sample sizes of the race/gender groups large enough to produce reliable results, seven of the economic variables were discarded for this portion of the data analysis. Questions about the importance of fringe benefits, retirement benefits, and getting a better job were excluded from the analysis because they were only asked on one form of the survey. Questions concerning the Army College Fund, the Army two-year option, and the enlistment bonus also were not used for this reason.

Analysis of the economic influence variables for the total sample resulted in two components. Table 18 shows that Money for College and Money for Vocational/Technical School formed one component. Unemployment, Earn More Money, and Skill Training formed the second component. Analysis for the Upper Test Score Category yielded the same components as the analysis for the entire sample. The principal components for the Lower Test Score Category did not include Skill Training in the second component. Females showed a new pattern with Money for College loading almost equally on two components. The first component for the women consisted of the variables Money for

TABLE 18

## ECONOMIC VARIABLE PRINCIPAL COMPONENTS

Total Sample	Upper TSC	Lower TSC
<u>PC1</u> \$ for College \$ for VoTech School	<u>PC1</u> \$ for VoTech School \$ for College	<u>PC1</u> \$ for VoTech School \$ for College
<u>PC2</u> Unemployment Earning More \$ Skill Training	<u>PC2</u> Unemployment Earning More \$ Skill Training	<u>PC2</u> Unemployment Earning More \$
Females	Upper TSC	Lower TSC
<u>PC1</u> \$ for VoTech School \$ for College Skill Training	<u>PC1</u> \$ for VoTech School \$ for College	<u>PC1</u> \$ for VoTech School \$ for College Earning More \$
<u>PC2</u> Unemployment \$ for College	<u>PC2</u> Unemployment Earning More \$	<u>PC2</u> Unemployment \$ for College
White Males	Upper TSC	Lower TSC
<u>PC1</u> \$ for College \$ for VoTech School VEAP/GI Bill	<u>PC1</u> \$ for VoTech School \$ for College	<u>PC1</u> \$ for VoTech School \$ for College
<u>PC2</u> Earning More \$ Unemployment Skill Training	<u>PC2</u> Unemployment Earning More \$ Skill Training	<u>PC2</u> Earning More \$ Unemployment
Black Males	Upper TSC	Lower TSC
<u>PC1</u> \$ for College \$ for VoTech School	<u>PC1</u> \$ for College \$ for VoTech School	<u>PC1</u> \$ for VoTech School \$ for College
<u>PC2</u> Earning More \$ Unemployment	<u>PC2</u> Earning More \$ VEAP/GI Bill	<u>PC2</u> Unemployment Earning More \$
		<u>PC3</u> Skill Training Unemployment



Vocational/Technical School, Money for College, and Skill Training. The second component was formed with the Money for College and Unemployment variables.

The Kaiser-Meyer-Olkin (KMO) statistics (Norusis, 1985, p.129) for the principal components analyses of the economic variables were in the range of .53 to .58 for the various demographic subgroups. Values in this range are often not considered adequate and suggest that principal components analysis may not be appropriate for the data. Additionally, the correlation matrices for the demographic groups showed very weak correlations between the economic variables, except for Money for College and Money for Vocational/Technical school, which showed stronger correlations than were found for any of the other variables. Appendix F has more detailed information on the results of the analysis.

## 2. Advertising Principal Components

As shown in Table 19, the demographic groups showed very little difference in the way the advertising variables were separated into components. The Respond to Advertising variable was usually in a component by itself. The newspaper advertising variables were in the same component for most of the subgroups. The Kaiser-Meyer-Olkin (KMO) values for the advertising variables were at least .8 for all of the subgroups, except the females. Values in this range (.80 to .89) are considered quite good. The principal



TABLE 19

## ADVERTISING VARIABLE PRINCIPAL COMPONENTS

Total Sample	Upper TSC	Lower TSC
<u>PC1</u>	<u>PC1</u>	<u>PC1</u>
Magazines	Magazines	Magazines
Television	Television	Television
Radio	School	Radio
School	Radio	School
Recruit Station	Recruit Station	Recruit Station
Mail	Mail	Mail
		Friend
<u>PC2</u>	<u>PC2</u>	<u>PC2</u>
Respond to AD	Respond to AD	Respond to AD
<u>PC3</u>	<u>PC3</u>	<u>PC3</u>
Help Wanted Ads	Help Wanted Ads	Other Paper Ads
Other Paper Ads	Other Paper Ads	Help Wanted Ads
<hr/>		
Females	Upper TSC	Lower TSC
<u>PC1</u>	<u>PC1</u>	<u>PC1</u>
Magazines	Magazines	Magazines
Television	Television	Television
Radio	Radio	Radio
School	School	School
	Mail	
<u>PC2</u>	<u>PC2</u>	<u>PC2</u>
Respond to AD	Respond to AD	Respond to AD
	Help Wanted Ads	Help Wanted Ads
<u>PC3</u>	<u>PC3</u>	
Other Paper Ads	Other Paper Ads	
Help Wanted Ads		

(Table 19 continued)

White Males	Upper TSC	Lower TSC
<u>PC1</u>	<u>PC1</u>	<u>PC1</u>
Magazines	Magazines	Magazines
Television	Television	Radio
Radio	School	Television
School	Radio	School
Recruit Station	Recruit Station	Recruit Station
Friend	Mail	Mail
		Friend
<u>PC2</u>	<u>PC2</u>	<u>PC2</u>
Respond to AD	Help Wanted Ads	Respond to AD
<u>PC3</u>	<u>PC3</u>	<u>PC3</u>
Help Wanted Ads	Respond to AD	Other Paper Ads
Other Paper Ads		

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Black Males	Upper TSC	Lower TSC
<u>PC1</u>	<u>PC1</u>	<u>PC1</u>
Magazines	Magazines	Magazines
Television	School	Television
Radio	Television	Radio
School	Recruit Station	School
Recruit Station	Radio	Recruit Station
Friend	Friend	Mail
Mail	Mail	
<u>PC2</u>	<u>PC2</u>	<u>PC2</u>
Help Wanted Ads	Help Wanted Ads	Help Wanted Ads
Other Paper Ads	Other Paper Ads	Other Paper Ads
<u>PC3</u>	<u>PC3</u>	<u>PC3</u>
Respond to AD	Respond to AD	Respond to AD

component analyses conducted on the women had KMO values of .70 to .79, which is considered fairly good (Norusis, 1985, p. 129).

The analysis for both quality groups of women and Lower TSC black males resulted in components which combined the variables Respond to Advertising and Help Wanted Ads. The Respond to Advertising variable was in a component by itself in the results for the other demographic groups. Although most Army advertising gives information about how to contact someone for further details, it seems logical that Help Wanted Ads would combine with the Respond to Advertising variable, since most people who look in the classified ads section of the newspaper are prepared to be referred to a phone number or address for more information. When Help Wanted Ads did not combine with Respond to Advertising, it combined with the variable Other Paper Ads.

Principal Component (PC) One for all groups was made up of variables concerning various advertising media used by the Army. The variables Magazines, Television, Radio, and School, had the highest loadings for all the demographic groups. There were no distinct differences in the components for the Upper TSC and the Lower TSC recruits. Results of the component analysis for the women excluded the Friend variable. Principal Component One for the Upper TSC black men included Other Paper Ads. This variable also combined with Help Wanted Ads to form a second component.

(See Table 19 and Appendix E for further information on the components.)

### 3. Recruiting Components

As Table 20 indicates, only three recruiting variables were chosen for analysis and it was hoped that these three variables would combine into one component. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy indicated that principal component analysis may not be appropriate for this group of variables. (All KMO values for the principal components analysis of the recruiting variables in the separate subgroups were less than .50, which is often considered unacceptable, since correlations between pairs of variables cannot be explained by the remaining variables.) The recruiter questions are only asked on one form of the New Recruit Survey, consequently there were fewer cases available for analysis than was true for the other two groups of variables. Results for the total sample paired Amount of Contact with Recruiter While in the Delayed Entry Program (DEP) with Recruiter Made First Contact. Appendix E gives further information on the analysis results.

### 4. Summary of Principal Components Analysis Results

Principal components analysis of the total sample resulted in two components for the economic variables, one relating to educational benefits, and the other to economic opportunities in the Army. Separate analyses for the two

TABLE 20

## RECRUITER VARIABLE PRINCIPAL COMPONENTS

Total Sample	Upper TSC	Lower TSC
<u>PC1</u> Satisfaction	<u>PC1</u> Amount of Contact Satisfaction	<u>PC1</u> Satisfaction Amount of Contact
<u>PC2</u> Amount of Contact First Contact		<u>PC2</u> First Contact

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Females	Upper TSC	Lower TSC
<u>PC1</u> Satisfaction Amount of Contact	<u>PC1</u> Amount of Contact Satisfaction	<u>PC1</u> Satisfaction
-	<u>PC2</u> First Contact	<u>PC2</u> First Contact Amount of Contact

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White Males	Upper TSC	Lower TSC
<u>PC1</u> Amount of Contact Satisfaction	<u>PC1</u> Satisfaction Amount of Contact	<u>PC1</u> Satisfaction Amount of Contact
<u>PC2</u> First Contact		<u>PC2</u> First Contact

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Black Males	Upper TSC	Lower TSC
<u>PC1</u> Satisfaction Amount of Contact	<u>PC1</u> Amount of Contact First Contact	<u>PC1</u> Satisfaction Amount of Contact
<u>PC2</u> First Contact	<u>PC2</u> Satisfaction	



quality groups resulted in components similar to those found for the total sample. Analysis for the women indicated less separation between the educational benefit variables and the economic opportunities variables. Unemployment and Money for College were paired for the females and the Lower TSC females. Also, Earning More Money joined Money for College and Money for Vocational/Technical School in the analysis for the Lower TSC females. It may be that Lower TSC women who want more education perceive that joining the Army will provide them with the best opportunity to make a living and save money for future schooling.

The advertising variables separated into three components for the total sample. Component One for the subgroups consisted of advertising that recruits are passively exposed to in their environment, such as television and radio commercials. Recall of advertising from a friend was included in the component for Lower TSC recruits, but it was not in the Upper TSC group's first component. This may be an indication that Upper TSC recruits made the decision to enlist more independently than the Lower TSC recruits. Lower TSC white males and Upper TSC black males had the Friend variable in their first component. The other two components for the quality groups were very similar for each demographic group.

The recruiter variables showed no consistent patterns in the analyses for the subgroups. The economic

and recruiter variables were considered less appropriate for principal components analysis than the advertising variables.

#### D. DISCRIMINANT ANALYSIS

Discriminant analysis was undertaken to determine if the influence and demographic variables could be used to classify the respondents by quality group. Discriminant analysis is used to differentiate populations by a particular characteristic. Test Score Category (Upper and Lower) was the dependent (grouping) variable used in this analysis. A stepwise technique was employed to determine which variables contributed to the correct classification of the cases by quality group. The proportion of Upper and Lower Test Score Category recruits was specified in the program for each subgroup. As discussed earlier in this chapter, the proportion of Upper and Lower TSC respondents varies significantly by demographic group.

The independent variables in the discriminant analyses included the seven questions pertaining to economic issues and the three recruiter questions that were used in the principal components analysis. In addition, principal components score coefficients were used to create an advertising variable, referred to below as the Advertising Factor. This variable, the newspaper advertising variables, and the variable asking if recruits responded to advertising, were used along with the individual economic

and recruiter variables for these discriminant analyses. The tables in Appendix F give the percent of respondents correctly classified at each step in the analysis, along with actual and predicted group counts for the total sample and the demographic subgroups.

1. Discriminant Analysis with Demographic and Influence Variables

Demographic variables such as race, gender, and age are known to be related to AFQT scores. Discriminant analysis using both influence and demographic variables yielded the results shown in Table 21. Refer to Table F for more extensive statistics.

- a. Total Sample

The first step in the stepwise discriminant analysis for the total sample selected the Money for College variable to classify the respondents into Upper and Lower Test Score Categories. Ethnic group and the Advertising Factor entered the discriminant function in steps 2 and 3. Age at Time of Accession entered in the fourth step to classify the total group of respondents. Money for Vocational/Technical School and Unemployment were the next two variables chosen. Participation in VEAP/GI Bill was also used to classify the respondents into quality groups. Gender was used in the ninth step of the discriminant analysis to separate the respondents. At the ninth step, 73 percent of the respondents in the total sample were

correctly classified by Test Score Category. (Chi Square significant at .01.)

TABLE 21

STEPWISE DISCRIMINANT ANALYSIS WITH  
DEMOGRAPHIC AND INFLUENCE VARIABLES

Total Sample

Step/Variable	% Correctly Classified
1/Money for College	67.08%
2/Ethnic Group	69.76%
3/Advertising Factor	71.75%
4/Age at Accession	71.63%
5/Money for Vocation/Tech School	71.96%
6/Unemployment	72.46%
7/Respond to Advertising	72.49%
8/Participation in VEAP/GI Bill	72.79%
9/Gender	72.79%

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Females

Step/Variable	% Correctly Classified
1/Ethnic Group	69.78%
2/Money for College	72.36%
3/Respond to Advertising	73.17%
4/Advertising Factor	74.91%
5/Satisfaction w/ Recruiter	79.76%
6/Help Wanted Ads	79.76%
7/Participation in VEAP/GI Bill	81.28%
8/Recruiter Made First Contact	80.26%
9/Recruiting Region	81.97%

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Males

Step/Variable	% Correctly Classified
1/Money for College	67.47%
2/Ethnic Group	69.26%
3/Advertising Factor	71.29%
4/Age at Accession	71.89%
5/Money for Vocation/Tech School	71.92%
6/Unemployment	72.33%

(Table 21 continued)

## White Males

Step/Variable	% Correctly Classified
1/Money for College	71.48%
2/Advertising Factor	73.11%
3/Age at Accession	73.80%
4/Unemployment	73.88%
5/Money for Vocation/Tech School	73.78%
6/Recruiting Region	74.04%

## Black Males

Step/Variable	% Correctly Classified
1/Age at Accession	65.01%
2/Other Newspaper Ads	65.83%
3/Participation in VEAP/GI Bill	66.95%
4/Money for College	67.97%
5/Amount of Contact w/Recruiter	68.69%
6/Help Wanted Ads	69.63%

## b. Females

Ethnic group was the first variable entered in the stepwise analysis for women. Money for College was entered in step 2. The variable concerning response to advertising was chosen in the third step to separate the quality groups, with the Advertising Factor entering next. The females were classified using the recruiter variables Satisfaction with Recruiter Contact and Recruiter Made First Contact in the fifth and sixth steps. Help Wanted Ads and the demographic variable Recruiting Region entered at steps 7 and 8. At the ninth step in the discriminant analysis for



the women, 82 percent were correctly classified by quality group. (Chi Square significant at .01.)

c. Males

Money for College, Ethnic Group, and the Advertising Factor entered in the first three steps of the discriminant analysis for men. The demographic variable, Age at Accession, entered in the fourth step. Money for Vocational/Technical School and Unemployment were the last two variables chosen to correctly classify 72 percent of the males. (Chi Square significant at .01.)

d. White Males

Money for College and the Advertising Factor entered the analysis in the first two steps to classify the white male respondents. Age at Time of Accession entered in the third step. Unemployment, Money for Vocational/Technical School, and Recruiting Region entered in steps four through six. At step six, 74 percent of the recruits were correctly classified by quality group. (Chi Square significant at .01.)

e. Black Males

Age at Time of Accession was used in the first step of the analysis for black men. Other Newspaper Ads entered in the second step. Participation in VEAP/GI Bill and Money for College were the third and fourth variables entered. This is the only group which did not have Money for College as the first influence variable entered in the

analysis. Amount of Contact with Recruiter entered in the fifth step, with Help Wanted Ads next. Seventy percent of the black male recruits were classified correctly. (Chi Square significant at .01.)

## 2. Discriminant Analysis with Influence Variables Only

The discriminant analysis using only the influence variables resulted in fewer correctly classified cases than the discriminant analysis which included the demographic variables for gender, race, age, and region. (See Table 22 and Appendix F for more information on the discriminant analysis.) These demographic variables are highly correlated with the grouping variable of Test Score Category. The analysis for the total sample, and for the males and females, initially chose the same three influence variables as the discriminant analyses in the previous section. The first three variables entered using stepwise analysis were: Money for College; the Advertising Factor; and Money for Vocational/Technical School. As Table 22 shows, after step 3 the variables chosen by the discriminant analysis program differed from those used in the analyses which included the demographic variables. (Table F-2 provides more detailed information on the results of the discriminant analyses.)

### a. Total Sample

As can be seen in Table 22, the discriminant function correctly classified 70 percent of the entire

sample. The influence variables entered after the third step only slightly increased the percentage of cases correctly classified. (Chi Square significant at .01.)

b. Females

Steps 4 through 7 of this discriminant analysis consisted of the same influence variables as those used in the discriminant analysis with demographic variables included. Earning More Money entered in the eighth step to correctly classify 76 percent of the women by quality group. (Chi Square significant at .01.)

c. Males

Skill Training and Earning More Money entered the analysis for the men in steps 4 and 5. Participation in VEAP/GI Bill, Respond to Advertising, and Recruiter Made First Contact, were entered to correctly classify 69 percent of the sample. Unemployment did not enter the stepwise analysis when only the influence variables were used, but it was entered in step 6 of the analysis which included demographic variables. (Chi Square significant at .01.)

d. White Males

Money for College and the Advertising Factor were entered in steps 1 and 2 in the analysis for the white males. Unemployment was the third variable selected, with Money for Vocational/Technical School entering next. Recruiter Made First Contact was the fifth variable chosen to classify the respondents. Seventy-four percent of the

TABLE 22

## STEPWISE DISCRIMINANT ANALYSIS WITH INFLUENCE VARIABLES ONLY

## Total Sample

Step/Variable	% Correctly Classified
1/Money for College	67.08%
2/Advertising Factor	69.08%
3/Money for Vocation/Tech School	69.08%
4/Recruiter Made First Contact	68.80%
5/Participation in VEAP/GI Bill	69.56%
6/Respond to Advertising	69.59%
7/Earning More Money	69.76%
8/Skill Training	69.76%
9/Unemployment	70.02%

## Females

Step/Variable	% Correctly Classified
1/Money for College	70.08%
2/Respond to Advertising	66.91%
3/Advertising Factor	72.38%
4/Recruiter Made First Contact	71.71%
5/Participation in VEAP/GI Bill	73.58%
6/Satisfaction w/Recruiter	73.82%
7/Help Wanted Ads	75.11%
8/Earning More Money	75.76%

## Males

Step/Variable	% Correctly Classified
1/Money for College	67.47%
2/Advertising Factor	68.70%
3/Money for Vocation/Tech School	68.32%
4/Skill Training	68.51%
5/Earning More Money	68.65%
6/Participation in VEAP/GI Bill	68.97%
7/Respond to Ad	69.25%
8/Recruiter Made First Contact	69.38%

(Table 22 continued)

## White Males

Step/Variable	% Correctly Classified
1/Money for College	71.48%
2/Advertising Factor	73.11%
3/Unemployment	73.75%
4/Money for Vocation/Tech School	73.61%
5/Recruiter Made First Contact	73.91%

## Black Males

Step/Variable	% Correctly Classified
1/Participation in VEAP/GI Bill	61.82%
2/Other Newspaper Ads	63.54%
3/Money for College	65.15%
4/Advertising Factor	66.02%
5/Help Wanted Ads	65.80%
6/Amount of Contact w/Recruiter	67.29%

white male sample was correctly classified. (Chi Square significant at .01.)

## e. Black Males

The results for this subgroup were the most divergent from the rest of the groups. Participation in VEAP/GI Bill entered in the first step. Other Newspaper Ads entered second, which is the reverse order from that in the analysis which included the demographic variables. Money for College entered third. The Advertising Factor and Help Wanted Ads variable entered in steps 4 and 5. Amount of Contact with Recruiter was the last variable entered in the stepwise analysis. Of the black males, 67 percent were correctly classified by quality group. (Chi Square significant at .01.)



### 3. Discriminant Analysis for Each Variable

A second discriminant analysis was done with the influence variables which entered into the stepwise discriminant analysis. For each subgroup the variables were analyzed to determine how well they correctly classified the sample by quality group. Results in Table 23 show that there is very little difference in the percent correctly classified when the variables are used independently.

TABLE 23

#### DISCRIMINANT ANALYSIS FOR INDIVIDUAL VARIABLES

##### Total Sample

Variable	% Correctly Classified
Money for College	67.08%
Advertising Factor	66.98%
Money for Vocation/Tech School	65.26%
Recruiter Made First Contact	65.85%
Participation in VEAP/GI Bill	65.51%
Respond to Advertising	65.55%
Earning More Money	65.28%
Skill Training	65.19%
Unemployment	65.19%

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##### Females

Variable	% Correctly Classified
Money for College	70.08%
Respond to Advertising	69.38%
Advertising Factor	69.20%
Recruiter Made First Contact	69.58%
Participation in VEAP/GI Bill	70.26%
Satisfaction w/Recruiter	70.76%
Help Wanted Ads	69.20%
Earning More Money	69.85%

(Table 23 continued)

Males

Variable	% Correctly Classified
Money for College	67.47%
Advertising Factor	66.43%
Money for Vocation/Tech School	64.31%
Skill Training	64.31%
Earning More Money	64.39%
Participation in VEAP/GI Bill	64.58%
Respond to Ad	64.80%
Recruiter Made First Contact	65.15%

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White Males

Variable	% Correctly Classified
Money for College	71.48%
Advertising Factor	70.63%
Unemployment	69.85%
Money for Vocation/Tech School	70.29%
Recruiter Made First Contact	70.63%

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Black Males

Variable	% Correctly Classified
Participation in VEAP/GI Bill	61.82%
Other Newspaper Ads	63.11%
Money for College	62.23%
Advertising Factor	63.30%
Help Wanted Ads	63.30%
Amount of Contact w/Recruiter	61.60%

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4. Summary of Discriminant Analysis Results

Money for College was the first influence variable entered in the discriminant analysis for all of the subgroups except black males. Ethnic Group was the first demographic variable entered in the analysis which included those variables. Results of the analyses were quite similar

for all the groups except the black men. Black males were also the only group with a higher proportion of Lower TSC members than Upper TSC. Age at Accession was the first demographic variable used to correctly classify black males. Participation in VEAP/GI Bill was the first influence variable used to classify this group when the demographic variables were not included. Black males were the hardest respondents to correctly classify as a group. Results of the discriminant analysis using those variables entered in the stepwise analysis indicate that, when used alone, each variable is almost equally good at classifying the samples into quality groups. The following chapter summarizes the results obtained in the analysis of the 1985 New Recruit Survey. Policy implications of the results of this research are addressed and recommendations for possible changes are offered.

## V. SUMMARY

The analyses undertaken and reported in this thesis attempted to identify differences in the influences on the enlistment decision of Upper Test Score Category (TSC) soldiers compared to Lower TSC soldiers. Variables from the New Recruit Survey were selected based on their influence on the enlistment decision. Three areas of influence were analyzed: economic returns, military advertising, and the Army recruiter. The following is a brief summary of the research findings. Policy implications of the findings are offered for further investigation.

### A. ANALYSIS RESULTS FOR MALE RECRUITS

Analysis of the influence variables for the male sample yielded differences in the responses for the two quality groups. Upper TSC males were more likely to say that they would not have signed up for the same job if it did not qualify for the Army College Fund bonus or another cash bonus. (Almost half of the Upper TSC males received a cash enlistment bonus, compared to only 15 percent of the Lower TSC males.) Upper TSC males were also more likely to say they would not have enlisted in the Army if a two-year option had not been available. Unemployment, skill training, and earning more money were stronger influences

for Lower TSC recruits than Upper TSC recruits. Retirement and fringe benefits were also more important to the Lower TSC males. The educational benefits offered by the Army were considerably more important to the Upper TSC recruits, with differences between the quality groups most pronounced on the influence of money for college, and less so on the influence of money for vocational/technical school. Upper TSC males were more likely to participate in the contributory educational benefit programs offered by the Army than Lower TSC recruits. Males were more likely to recall television advertising than any other form of Army advertising. Lower TSC males were more likely to say that they were dissatisfied with the amount of recruiter contact they had while in the Delayed Entry Program (DEP) than Upper TSC males.

Results of the principal component analysis divided the economic variables into two components. One component for educational benefits, which included Money for College and Money for Vocational/Technical School. The other component was related to the employment and economic opportunities available in the Army, and included the variables Earning More Money, Unemployment, and Skill Training. It appears that the sample can be divided into segments of college-bound recruits and employment-bound recruits.

Among the advertising variables, Respond to Advertising was in a component by itself, and the newspaper advertising



variables formed another component. The newspaper advertising component may reflect a difference in the content and focus of such advertising, especially newspaper help wanted ads. Those variables which asked about the recall of Army advertising in Magazines, on Television and the Radio, and at School or a Recruiting Station, formed a component that was subsequently used as a variable in the discriminant analysis. There were no differences in the advertising components for the two quality groups. Army advertising may be impacting similarly on the Upper and Lower TSC recruits because the media used is not targeted toward any one subgroup of the population.

Satisfaction with Amount of Recruiter Contact was in a component by itself, with Amount of Recruiter Contact and Recruiter Made First Contact forming another component for the males. The results of this analysis are not clearly interpretable. Analysis of the recruiter variables using a different methodology might yield more meaningful results than those found with principal components.

Results of discriminant analysis, using only one variable at a time, indicated that the influence variables used in the principal components analysis were all about equally good at correctly classifying the quality groups. Money for College was selected in the first step of a stepwise discriminant analysis for the males, with the Advertising Factor and Money for Vocational/Technical school

being used in the second and third steps. Skill Training, Earning More Money, Participation in the VEAP/GI Bill, Respond to Advertising, and Recruiter Made First Contact were also entered in the stepwise analysis to correctly classify 69 percent of the male respondents. The Upper TSC males were easier to classify correctly than the Lower TSC males.

#### B. ANALYSIS RESULTS FOR FEMALE RECRUITS

Despite legal and policy constraints on the role of women in the Army, the participation of women has increased dramatically in the last decade. Influences on the enlistment decision for women are not the same as the influences for men. The females in this sample did not show the same patterns between quality groups as the males. Because the supply of females wanting to join the Army exceeds the demand, the proportion of high quality female enlistees (70 percent) is greater than the proportion of high quality male recruits (64 percent).

Results of the cross tabulations showed that less than 3 percent of the Lower TSC females, and only 19.5 percent of the Upper TSC females, received cash bonuses. This is probably due to the fact that U.S. law excludes women from many of the supply-critical combat-oriented jobs which offer cash bonuses. Money for college was more important to the Upper TSC group than the Lower TSC group. Upper TSC females were more likely to say that money for vocational/technical

school was not important to their enlistment decision, but almost as many Lower as Upper TSC females said that this factor was very important or that they would not have enlisted if not for the chance to obtain money for vocational/technical school. Upper TSC females were more likely to be participating in a contributory educational benefit program than Lower TSC females. Results indicated that military retirement and fringe benefits were more important to Lower TSC females than they were to Upper TSC females. Women in this sample seemed very interested in learning a skill, and were not influenced very much by the Army two-year option.

Much military advertising is directed toward men, but the results show that recall of advertising by women is very similar to the recall reported by men. The influence of recruiters on females reflected the fact that recruiters do not have to seek women actively to meet quotas. More Lower TSC than Upper TSC females said that the recruiters' initial contact was very important to their decision to enlist and that the contact they had with the recruiter while in the DEP was more than they would have liked. Females were most likely to say that they had contact with the recruiter every few days.

Principal component analysis for the women indicated less separation between the educational benefit variables and the employment/economic opportunity variables. Money

for Vocational/Technical School, Money for College, and Skill Training formed one component, while Unemployment and Money for College were paired in another component for the females. It may be that women who want more education perceive that joining the Army will provide them with a better opportunity to make a living and save money for future schooling than a job in the civilian labor market. Since men usually have more employment opportunities than women, it is possible that male recruits had employment options available to them that women did not have, and that the differences in the components for the males and females are a result of the differences in the alternatives available to these two groups.

Magazines, Television, Radio, and School advertising formed one component in the principal components analysis of the advertising variables. Most advertising sent through the mail is targeted at male youth, so it is not surprising that this variable did not load heavily in this component, while it did for the males. Respond to Advertising was in a component by itself, with the newspaper advertising variables forming another component. Again, the orientation of newspaper want ads is much different from the other types of advertising in that a person is generally not exposed to such advertising unless they are actively looking for it.

Principal components using the recruiter variables paired Satisfaction with Amount of Contact while in the



Delayed Entry Program (DEP) with Amount of Recruiter Contact, for the Upper TSC women. Recruiter Made First Contact was in a component by itself. For the Lower TSC group, Recruiter Made First Contact and Amount of Recruiter Contact were in one component. Satisfaction with the Amount of Recruiter Contact was in another component. Although the results indicate that recruiters affect women differently than men, it is not possible to interpret these differences clearly with the present analysis.

Results of discriminant analyses undertaken using each variable separately indicated that the variables included were almost equally effective at classifying the women by Test Score Category. Results of the discriminant analysis for the women indicated that their interactions with recruiters were important to distinguishing between the two quality groups. Money for College was used in the first step to correctly classify the respondents. Respond to Advertising was the second variable entered to separate the sample into Upper and Lower TSC groups. The Advertising Factor (formed from the first component in the principal components analysis) and Recruiter Made First Contact were entered in the third and fourth steps of the analysis. Participation in the contributory educational benefit programs, Satisfaction with Amount of Recruiter Contact, Help Wanted Ads, and Earning More Money were entered following the above variables to correctly classify



76 percent of the women. As with the males, the Upper TSC females were correctly classified at a much higher rate than the Lower TSC females.

### C. CONCLUSIONS

Since 1973, when the current All-Volunteer Force was instituted, the supply of recruits has not been a problem in terms of quantity, but there have been periods during which the quality of enlistees has been inferior to the standards the Army requires to meet its mission.

The Army does not have the opportunity to use job history as a screening device for the majority of applicants. Yet it has to incorporate into its recruiting criteria measures which will not only fill the Army's personnel needs at the entry level, but which will also provide a base from which the personnel needed at higher levels can be drawn. At the present time the Army and the other services use ASVAB test score results and educational level as measures to predict success in the military. While these measures are not perfect, they are relatively inexpensive and have reliably predicted potential for success in the armed forces. This section will concentrate on the influences on Upper TSC recruits to enlist, since the supply of these high quality recruits sometimes does not meet the demand.

The Army offers a two-year enlistment to those willing to enlist in select jobs. Upper TSC recruits took advantage

of this option. The majority of the respondents were young and had recently left school. Analysis of Army recruits who have just started active duty indicated that Upper TSC recruits were more strongly influenced by educational benefits than by the chance to learn a skill or to escape unemployment.

With the increasing costs of a college education, more college-bound students are having to find ways to finance their education. Upper TSC recruits were motivated to join the Army to acquire money for further formal education. Upper TSC recruits were also interested in money for vocational/technical school. Upper TSC recruits joined to receive extra educational bonuses, which are given to the recruits upon successful completion of their enlistment. High quality recruits enrolled in the Army's contributory educational benefit programs.

The Army needs to retain a certain percentage of soldiers to have a pool from which to "grow" the non-commissioned officers who provide supervision and advanced technical experience. Incentives that influence high quality enlistees who are not college-bound after completion of their first enlistment are critical so that the Army's senior enlisted ranks are composed of a proper proportion of high quality soldiers.

#### D. RECOMMENDATIONS

Results of this analysis suggest that educational benefits are influencing high quality youth to enlist. Further study would be necessary to ascertain the degree of cost-effectiveness of such incentives. One drawback of educational incentives is that they encourage soldiers to leave the Army after their initial active duty obligation. It is possible that some of these recruits will change their minds about going to college, or decide to take college courses on their off-duty time. Soldiers are encouraged to pursue further education to enhance their promotability, but often educational programs are not scheduled so that a soldier who has to go to the field routinely can benefit from them. More efforts might be made to provide educational programs geared to the soldier's needs so that the options to stay in the Army or leave to attain an educational goal are not mutually exclusive.

Enlistment bonuses may be cost effective incentives for those who are not interested in further education, but who are willing to work in jobs experiencing manning shortages. Cash bonuses are generally considered a flexible recruiting tool because the services are able to control and change them as necessary. They are also more cost-effective than across-the-board pay increases. Although the exact relationship between advertising and enlistment rates is not known it is important that the Army continue to let youth

know what it has to offer. Advertising which emphasizes skill training and the opportunity to make a respectable career in the Army might further motivate the Upper TSC individual who isn't sure what to do after graduating from high school. Advertising can supplement the recruiters' efforts and influence those individuals who are not in school, but who have much to offer the Army. The Army's advertising programs can create an image that will convince young men and women that the Army can help them meet their future career goals.

Results of the analysis indicate that recruiters play an indispensable role in the enlistment decision. Continued acknowledgement of the recruiters' efforts and policies directed at obtaining and maintaining effective recruiters is recommended. No single incentive can meet the needs of all Army enlistees, for even the high quality individuals who join the Army do so for different reasons. Also, there is a place for soldiers who do not score in the Upper TSC. American youth want to be challenged, and there are jobs in the Army for individuals who score in the Lower TSC.

The only way that the Army can compete with the alternatives to military service available to American youth is to offer compensation and benefits that compare favorably with those alternatives. The options for most potential recruits include civilian employment, full time school attendance, and part time school attendance, perhaps

combined with full or part time employment. This analysis gives an indication of what motivated high quality recruits to enlist. It does not provide information about those who chose not to enlist. This information would be necessary in order to determine what policy changes, if any, would be cost effective to implement in order to increase the supply of high quality recruits.



# APPENDIX A: ALTERNATIVE METRICS FOR MENTAL GROUPS

TABLE A-1

## ALTERNATIVE METRICS FOR MENTAL GROUPS

MG	AFQT Percentile Rank	Percent Reference Population in MG	Z or Standard Score <sup>a</sup>	Navy Standard Score <sup>b</sup>	Army/MC Standard Score <sup>c</sup>	IQ <sup>d</sup>
I	93	7	1.48	65	130	122
II	65	28	0.39	54	108	106
IIIA	49	16	-0.03	50	99	100
IIIB	31	18	-0.49	45	90	93
IVA	21	10	-0.80	42	84	88
IVB	16	5	-0.99	40	80	85
IVC	10	6	-1.28	37	74	81
V	1	9	-2.29	27	54	66

<sup>a</sup>Mean = 0, S.D. = 1 where  $Z = \frac{x - \bar{x}}{S.D.}$

<sup>b</sup>NSS = 10Z + 50 (Mean = 50, S.D. = 10)

<sup>c</sup>Mean = 100, S.D. = 20

<sup>d</sup>Wechsler Adult Intelligence Scale Standard Score Mean = 100,  
S.D. = 15

Source: Barclay

# APPENDIX B: CROSSTABULATIONS OF ECONOMIC VARIABLES

TABLE B-1

EFFECT OF NO ACF FOR MOS (T060)

Suppose the job you signed up for did not pay an Army College Fund (ACF) extra education Bonus. What would you have done?

	Count	
1-signed up for the same job anyway	950	46.4%
2-signed up for a different job in the Army whether or not it paid this educational bonus	197	9.6%
3-signed up for a different job in the Army only if it paid a cash bonus	492	24.0%
4-tried to join a different service AND		
5-not enlisted at all	410	20.0%

Total Sample	Count=	Upper	Lower	Total
		1410	639	2049
1		43.3	53.1	46.4%
2		8.3	12.5	9.6%
3		27.2	17.1	24.0%
4+5		21.2	17.4	20.0%
CHISQUARE 39.04	D.F. 3		Significance 0.0000	

Females	Count=	Upper	Lower	Total
		196	70	266
1		45.4	57.1	48.5%
2		9.2	10.0	9.4%
3		25.5	11.4	21.8%
4+5		19.9	21.4	20.3%
CHISQUARE 6.25	D.F. 3		Significance 0.0000	

(Table B-1 continued)

Males	Count=	Upper 1214	Lower 569	Total 1783
1		43.0	52.5	46.0%
2		8.2	12.8	9.6%
3		27.4	17.8	24.3%
4+5		21.4	16.9	20.0%
CHISQUARE 35.37		D.F. 3	Significance 0.0000	

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Black Males	Count=	Upper 166	Lower 194	Total 360
1		38.0	41.8	40.0%
2		10.8	17.0	14.2%
3		34.9	22.7	28.3%
4+5		16.3	18.6	17.5%
CHISQUARE 7.74		D.F. 3	Significance 0.0517	

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White Males	Count=	Upper 1048	Lower 375	Total 1423
1		43.8	58.1	47.6%
2		7.7	10.7	8.5%
3		26.2	15.2	23.3%
4+5		22.2	16.0	20.6%
CHISQUARE 34.37		D.F. 3	Significance 0.0000	

TABLE B-2

## EFFECT OF NO ARMY 2 YEAR OPTION (T065)

Suppose no military service had a 2-year option. What would you have done?

	Count	
1-signed up for the same job anyway	643	46.0%
2-signed up for a different job in the Army	204	14.6%
3-tried to join a different service AND		
4-not enlisted at all	552	39.5%

Total Sample	Count=	Upper	Lower	Total
		973	426	1399
1		42.2	54.5	46.0%
2		14.3	15.3	14.6%
3+4		43.5	30.3	39.5%
CHISQUARE 22.89	D.F. 2		Significance 0.0000	

Females	Count=	Upper	Lower	Total
		110	48	158
1		48.2	52.1	49.4%
2		12.7	16.7	13.9%
3+4		39.1	31.3	36.7%
CHISQUARE 1.04	D.F. 2		Significance 0.5960	

Males	Count=	Upper	Lower	Total
		863	378	1241
1		41.5	54.8	45.5%
2		14.5	15.1	14.7%
3+4		44.0	30.2	39.8%
CHISQUARE 22.95	D.F. 2		Significance 0.0000	

(Table B-2 continued)

Black Males	Count=	Upper 100	Lower 154	Total 254
1		53.0	49.4	50.8%
2		13.0	20.8	17.7%
3+4		34.0	29.9	31.5%

CHISQUARE 2.55                      D.F. 2                      Significance 0.2783

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White Males	Count=	Upper 763	Lower 224	Total 987
1		40.0	58.5	44.2%
2		14.7	11.2	13.9%
3+4		45.3	30.4	41.9%

CHISQUARE 24.25                      D.F. 2                      Significance 0.0000



TABLE B-3

## SELF-REPORT OF CASH ENLISTMENT BONUS (T066)

Did you sign up for a job that pays a cash enlistment bonus?  
(Respondents were asked to indicate the amount. Results have  
been recoded here to simply yes if an amount was marked.)

	Count	
0-no	2756	50.4%
1-I don't know	883	16.1%
2=yes	1829	33.4%

Total Sample	Count=	Upper	Lower	Total
		3619	1849	5468
0		47.5	56.0	50.4%
1		8.6	31.0	16.1%
2		43.9	13.0	33.4%
CHISQUARE 748.55	D.F. 2		Significance 0.0	

Females	Count=	Upper	Lower	Total
		626	273	899
0		64.5	58.6	62.7%
1		16.0	38.8	22.9%
2		19.5	2.6	14.3%
CHISQUARE 82.34	D.F. 2		Significance 0.0000	

Males	Count=	Upper	Lower	Total
		2993	1576	4569
0		44.0	55.6	48.0%
1		7.0	29.6	14.8%
2		49.0	14.8	37.2%
CHISQUARE 710.50	D.F. 2		Significance 0.0	

(Table B-3 continued)

Black Males	Count=	Upper 318	Lower 494	Total 812
0		34.6	56.3	47.8%
1		8.2	31.4	22.3%
2		57.2	12.3	29.9%
CHISQUARE	195.99	D.F. 2	Significance	0.0

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White Males	Count=	Upper 2675	Lower 1082	Total 3757
0		45.1	55.3	48.0%
1		6.9	28.8	13.2%
2		48.0	15.9	38.8%
CHISQUARE	503.18	D.F. 2	Significance	0.0

TABLE B-4

## EFFECT OF NO BONUS FOR MOS (T067)

Suppose the job you signed up for did not pay a cash bonus.  
What would you have done?

	Count	
1-signed up for the same job anyway	1429	57.6%
2-signed up for a different job in the Army whether or not it paid a cash bonus	278	11.2%
3-signed up for a different job in the Army only if it paid a cash bonus	494	19.9%
4-tried to join a different service AND		
5-not enlisted at all	280	11.3%

Total Sample	Count=	Upper	Lower	Total
		1824	657	2481
1		54.3	66.8	57.6%
2		12.0	9.1	11.2%
3		22.0	14.0	19.9%
4+5		11.7	10.0	11.3%
CHISQUARE 33.50	D.F. 3		Significance 0.0000	

Females	Count=	Upper	Lower	Total
		160	51	211
1		60.0	64.7	61.1%
2		15.0	13.7	14.7%
3		17.5	9.8	15.6%
4+5		7.5	11.8	8.5%
CHISQUARE 2.47	D.F. 3		Significance 0.4804	

Males	Count=	Upper	Lower	Total
		1664	606	2270
1		53.7	67.0	57.3%
2		11.7	8.7	10.9%
3		22.5	14.4	20.3%
4+5		12.1	9.9	11.5%
CHISQUARE 33.47	D.F. 3		Significance 0.0000	

(Table B-4 continued)

Black Males	Count=	Upper 206	Lower 204	Total 410
1		41.7	56.9	49.3%
2		18.4	13.7	16.1%
3		29.6	18.1	23.9%
4+5		10.2	11.3	10.7%

CHISQUARE 11.93

D.F. 3

Significance 0.0076

White Males	Count=	Upper 1458	Lower 402	Total 1860
1		55.4	72.1	59.0%
2		10.7	6.2	9.7%
3		21.5	12.4	19.5%
4+5		12.4	9.2	11.7%

CHISQUARE 37.36

D.F. 3

Significance 0.0000

TABLE B-5

## IMPORT OF UNEMPLOYMENT (T069)

Rate how important the following reason was in your decision to enlist: I enlisted because I was unemployed and couldn't find a job.

	Count	
1-not at all important	3616	63.5%
2-somewhat important	1340	23.5%
3-very important AND		
4-I would not have enlisted except for this reason	737	12.9%

Total Sample	Count=	Upper	Lower	Total
		3711	1982	5693
1		66.3	58.4	63.5%
2		22.8	24.9	23.5%
3+4		10.9	16.8	12.9%
CHISQUARE 48.96	D.F. 2		Significance 0.0000	

Females	Count=	Upper	Lower	Total
		646	278	924
1		65.5	54.7	62.2%
2		21.7	28.1	23.6%
3+4		12.8	17.3	14.2%
CHISQUARE 9.68	D.F. 2		Significance 0.0079	

Males	Count=	Upper	Lower	Total
		3065	1704	4721
1		66.4	59.0	63.8%
2		23.1	24.4	23.5%
3+4		10.5	16.7	12.7%
CHISQUARE 43.01	D.F. 2		Significance 0.0000	



(Table B-5 continued)

Black Males	Count=	Upper 328	Lower 544	Total 872
1		64.9	62.9	63.6%
2		23.2	23.5	23.4%
3+4		11.9	13.6	13.0%

CHISQUARE 0.61

D.F. 2

Significance 0.7362

White Males	Count=	Upper 2737	Lower 1160	Total 3897
1		66.6	57.2	63.8%
2		23.1	24.7	23.6%
3+4		10.3	18.1	12.7%

CHISQUARE 51.21

D.F. 2

Significance 0.0000

TABLE B-6

## IMPORT OF EARNING MORE MONEY (T075)

Rate how important the following reason was in your decision to enlist: I enlisted because I can earn more money than as a civilian.

	Count	
1-not at all important	2055	36.2%
2-somewhat important	2038	35.9%
3-very important AND		
4-I would not have enlisted except for this reason	1589	28.0%

Total Sample	Count=	Upper	Lower	Total
		3709	1973	5682
1		38.6	31.6	36.2%
2		35.4	36.7	35.9%
3+4		26.0	31.7	28.0%
CHISQUARE 32.70	D.F. 2		Significance 0.0000	

Females	Count=	Upper	Lower	Total
		644	278	922
1		32.6	28.4	31.3%
2		36.3	39.9	37.4%
3+4		31.1	31.7	31.2%
CHISQUARE 1.78	D.F. 2		Significance 0.4106	

Males	Count=	Upper	Lower	Total
		3065	1695	4760
1		39.8	32.2	37.1%
2		35.2	36.2	35.6%
3+4		24.9	31.7	27.3%
CHISQUARE 35.85	D.F. 2		Significance 0.0000	

(Table B-6 continued)

Black Males	Count=	Upper	Lower	Total
		332	541	873
1		36.7	32.3	34.0%
2		34.9	35.7	35.4%
3+4		28.3	32.0	30.6%

CHISQUARE 2.11

D.F. 2

Significance 0.3490

White Males	Count=	Upper	Lower	Total
		2733	1154	3887
1		40.2	32.1	37.8%
2		35.3	36.4	35.6%
3+4		24.5	31.5	26.6%

CHISQUARE 29.61

D.F. 2

Significance 0.0000

TABLE B-7

## IMPORT OF SKILL TRAINING (T078)

Rate how important the following reason was in your decision to enlist: I enlisted to get trained in a skill that will help me get a civilian job when I get out.

	Count	
1-not at all important	1191	20.9%
2-somewhat important	1327	23.3%
3-very important	2165	38.0%
4-I would not have enlisted except for this reason	1016	17.8%

Total Sample	Count=	Upper	Lower	Total
		3715	1984	5699
1		23.9	15.3	20.9%
2		23.9	22.1	23.3%
3		34.6	44.3	38.0%
4		17.6	18.3	17.8%

CHISQUARE 80.18                      D.F. 3                      Significance 0.0000

Females	Count=	Upper	Lower	Total
		644	280	924
1		11.6	11.4	11.6%
2		27.6	23.2	26.3%
3		41.3	50.7	44.2%
4		19.4	14.6	18.0%

CHISQUARE 7.84                      D.F. 3                      Significance 0.0494

Males	Count=	Upper	Lower	Total
		3071	1704	4775
1		26.5	15.9	22.7%
2		23.1	21.9	22.7%
3		33.2	43.3	36.8%
4		17.2	18.9	17.8%

CHISQUARE 86.39                      D.F. 3                      Significance 0.0000

(Table B-7 continued)

Black Males	Count=	Upper 332	Lower 544	Total 876
1		19.6	13.1	15.5%
2		22.0	22.6	22.4%
3		40.1	48.3	45.2%
4		18.4	16.0	16.9%

CHISQUARE 9.52

D.F. 3

Significance 0.0232

White Males	Count=	Upper 2739	Lower 1160	Total 3899
1		27.3	17.2	24.3%
2		23.3	21.6	22.8%
3		32.4	40.9	34.9%
4		17.1	20.3	18.0%

CHISQUARE 56.34

D.F. 3

Significance 0.0000



TABLE B-8

## IMPORT OF MONEY FOR COLLEGE (T079)

Rate how important the following reason was in your decision to enlist: I enlisted so I can get money for a college education.

	Count	
1-not at all important	1186	20.9%
2-somewhat important	1239	21.9%
3-very important	1885	33.3%
4-I would not have enlisted except for this reason	1358	24.0%

Total Sample	Count=	Upper	Lower	Total
		3698	1970	5668
1		14.6	32.7	20.9%
2		19.2	26.8	21.9%
3		36.2	27.8	33.3%
4		30.0	12.7	24.0%

CHISQUARE 422.64      D.F. 3      Significance 0.0

Females	Count=	Upper	Lower	Total
		644	275	919
1		16.0	20.7	17.4%
2		14.9	30.2	19.5%
3		36.8	32.0	35.4%
4		32.3	17.1	27.7%

CHISQUARE 42.88      D.F. 3      Significance 0.0000

Males	Count=	Upper	Lower	Total
		3054	1695	4749
1		14.3	34.7	21.6%
2		20.1	26.3	22.3%
3		36.1	27.1	32.8%
4		29.5	12.0	23.2%

CHISQUARE 39.50      D.F. 3      Significance 0.0

(Table B-8 continued)

Black Males	Count=	Upper 329	Lower 542	Total 871
1		16.1	28.8	24.0%
2		20.7	2.62	24.1%
3		34.3	31.5	32.6%
4		28.9	13.5	19.3%
CHISQUARE 41.99		D.F. 3	Significance 0.0000	

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White Males	Count=	Upper 2725	Lower 1153	Total 3878
1		14.1	37.5	21.1%
2		20.1	26.3	21.9%
3		36.3	25.0	32.9%
4		29.5	11.3	24.1%
CHISQUARE 367.16		D.F. 3	Significance 0.0	

TABLE B-9

## IMPORT OF MONEY FOR VOTECH/BUSINESS EDUCATION (T082)

Rate how important the following reason was in your decision to enlist: I enlisted so I can get money for civilian vocational, technical, or business school education.

	Count	
1-not at all important	2117	37.3%
2-somewhat important	1495	26.3%
3-very important AND		
4-I would not have enlisted except for this reason	2070	36.4%

Total Sample	Count=	Upper	Lower	Total
		3708	1974	5682
1		36.73	38.4	37.3%
2		25.1	28.5	26.5%
3+4		38.2	33.1	36.4%

CHISQUARE 15.99                      D.F. 2                      Significance 0.0003

Females	Count=	Upper	Lower	Total
		646	275	921
1		41.3	34.9	39.4%
2		22.4	31.3	25.1%
3+4		36.2	33.8	35.5%

CHISQUARE 8.32                      D.F. 2                      Significance 0.0156

Males	Count=	Upper	Lower	Total
		3062	1699	4761
1		35.1	39.0	36.8%
2		25.7	28.1	26.5%
3+4		38.6	33.0	36.6%

CHISQUARE 15.16                      D.F. 2                      Significance 0.0005

(Table B-9 continued)

Black Males	Count=	Upper 330	Lower 544	Total 874
1		29.4	36.8	34.0%
2		27.6	27.6	27.6%
3+4		43.0	35.7	38.4%
CHISQUARE 6.18	D.F. 2		Significance 0.0454	

---

White Males	Count=	Upper 2732	Lower 1155	Total 3887
1		36.4	40.0	37.5%
2		25.5	28.3	26.3%
3+4		38.1	31.7	36.2%
CHISQUARE 14.49	D.F. 2		Significance 0.0007	

TABLE B-10

## IMPORT OF RETIREMENT BENEFITS (T087)

Rate how important the following reason was in your decision to enlist: I enlisted because I like the retirement benefits.

	Count	
1-not at all important	678	37.0%
2-somewhat important	619	33.8%
3-very important AND		
4-I would not have enlisted except for this reason	536	29.2%

Total Sample	Count=	Upper	Lower	Total
		119	635	1833
1		38.8	33.5	37.0%
2		35.0	31.5	33.8%
3+4		26.2	35.0	29.2%

CHISQUARE 15.47                      D.F. 2                      Significance 0.0004

Females	Count=	Upper	Lower	Total
		200	89	289
1		43.0	37.1	41.2%
2		38.5	38.2	38.4%
3+4		18.5	24.7	20.4%

CHISQUARE 1.69                      D.F. 2                      Significance 0.4290

Males	Count=	Upper	Lower	Total
		998	546	1544
1		38.0	33.0	36.2%
2		34.3	30.4	32.9%
3+4		27.8	36.6	30.9%

CHISQUARE 13.05                      D.F. 2                      Significance 0.0015



(Table B-10 continued)

Black Males	Count=	Upper 100	Lower 163	Total 263
1		37.0	35.6	36.1%
2		29.0	29.4	29.3%
3+4		34.0	35.0	34.6%

CHISQUARE 0.06

D.F. 2

Significance 0.9726

White Males	Count=	Upper 898	Lower 383	Total 1281
1		38.1	31.9	36.2%
2		34.9	30.8	33.6%
3+4		27.1	37.3	30.1%

CHISQUARE 13.59

D.F. 2

Significance 0.0011

TABLE B-11

## IMPORT OF FRINGE BENEFITS (T088)

Rate how important the following reason was in your decision to enlist: I enlisted because I want the fringe benefits (e.g. health-dental care, low prices in military stores.)

	Count	
1-not at all important	419	22.7%
2-somewhat important	787	42.7%
3-very important AND		
4-I would not have enlisted except for this reason	637	34.6%

Total Sample	Count=	Upper	Lower	Total
		1205	638	1843
1		23.0	22.3	22.7%
2		44.6	39.2	42.7%
3+4		32.4	38.6	34.6%
CHISQUARE 7.43	D.F. 2		Significance 0.0244	

Females	Count=	Upper	Lower	Total
		201	89	290
1		20.4	16.9	19.3%
2		43.8	43.8	43.8%
3+4		35.8	39.3	36.9%
CHISQUARE 0.61	D.F. 2		Significance 0.7384	

Males	Count=	Upper	Lower	Total
		1004	549	1553
1		23.5	23.1	23.4%
2		44.7	38.4	42.5%
3+4		31.8	38.4	34.1%
CHISQUARE 7.94	D.F. 2		Significance 0.0189	

(Table B-11 continued)

Black Males	Count=	Upper 102	Lower 167	Total 269
1		19.6	30.5	26.4%
2		46.1	29.9	36.1%
3+4		34.3	39.5	37.5%
CHISQUARE 7.90	D.F. 2		Significance 0.0193	

---

White Males	Count=	Upper 902	Lower 382	Total 1284
1		23.9	19.9	22.7%
2		44.6	42.1	43.8%
3+4		31.5	38.0	33.4%
CHISQUARE 5.66	D.F. 2		Significance 0.0590	

TABLE B-12

## IMPORT OF GETTING A BETTER JOB (T096)

Rate how important the following reason was in your decision to enlist: I enlisted to obtain a better job than the one I had.

	Count	
1-not at all important	745	40.6%
2-somewhat important	403	22.0%
3-very important AND		
4-I would not have enlisted except for this reason	687	37.4%

Total Sample	Count=	Upper 1202	Lower 633	Total 1835
1		43.7	34.8	40.6%
2		22.0	22.0	22.0%
3+4		34.4	43.3	37.4%

CHISQUARE 16.95                      D.F. 2                      Significance 0.0002

Females	Count=	Upper 201	Lower 87	Total 288
1		38.3	37.9	38.2%
2		16.9	12.6	15.6%
3+4		44.8	49.4	46.2%

CHISQUARE 1.00                      D.F. 2                      Significance 0.6079

Males	Count=	Upper 1001	Lower 546	Total 1547
1		44.8	34.2	41.0%
2		23.0	23.4	23.1%
3+4		32.3	42.3	35.8%

CHISQUARE 19.48                      D.F. 2                      Significance 0.0001

(Table B-12 continued)

Black Males	Count=	Upper 98	Lower 168	Total 266
1		46.9	36.9	40.6%
2		15.3	22.0	19.5%
3+4		37.8	41.1	39.8%

CHISQUARE 3.13                      D.F. 2                      Significance 0.2086

White Males	Count=	Upper 903	Lower 378	Total 1281
1		44.5	33.1	41.1%
2		23.8	24.1	23.9%
3+4		31.7	42.9	35.0%

CHISQUARE 18.03                      D.F. 2                      Significance 0.0001



TABLE B-13

## PARTICIPATION IN VEAP/GI BILL EDUCATIONAL ASST (T631)

---

Are you participating in either the VEAP or the New GI Bill education assistance plans?

	Count	
1=yes, VEAP AND		
2=yes, New GI Bill	3190	60.2%
3=no	1320	24.9%
8-I don't know	449	15.0%

---

Total Sample	Count=	Upper	Lower	Total
		3474	1829	5303
1+2		69.3	42.7	60.2%
3		17.2	38.5	24.9%
8		12.9	18.8	15.0%
CHISQUARE 376.56	D.F. 2	Significance 0.0		

---

Females	Count=	Upper	Lower	Total
		612	259	871
1+2		67.0	48.3	61.4%
3		20.9	35.5	25.3%
8		12.1	16.2	13.3%
CHISQUARE 28.09	D.F. 2	Significance 0.0000		

---

Males	Count=	Upper	Lower	Total
		2862	1570	4432
1+2		69.8	41.8	59.9%
3		17.1	39.0	24.8%
8		13.2	19.2	15.3%
CHISQUARE 354.69	D.F. 2	Significance 0.0		

(Table B-13 continued)

Black Males	Count=	Upper	Lower	Total
		98	168	266
1+2		46.9	36.9	40.6%
3		15.3	22.0	19.5%
8		37.8	41.1	39.8%

CHISQUARE 3.13

D.F. 2

Significance 0.2086

White Males	Count=	Upper	Lower	Total
		2555	1073	3628
1+2		70.3	42.1	61.9%
3		16.5	39.5	23.3%
8		13.2	18.4	14.7%

CHISQUARE 281.44

D.F. 2

Significance 0.0

## APPENDIX C: CROSSTABULATIONS OF ADVERTISING VARIABLES

TABLE C-1

## RECALL ARMY AD ON TV (T114A)

Do you remember seeing, hearing, or receiving any Army advertising or promotional material before you enlisted? If so, where did you see or hear this material? ON TELEVISION

	Count	
0-not checked	547	15.9%
1-checked	2890	84.1%

Total Sample	Count=	Upper	Lower	Total
		2256	1181	3437
0		11.3	24.6	15.9%
1		88.7	75.4	84.1%
CHISQUARE 101.36	D.F. 1	Significance 0.0000		

Females	Count=	Upper	Lower	Total
		391	174	565
0		12.3	25.9	16.5%
1		87.7	74.1	83.5%
CHISQUARE 15.19	D.F. 1	Significance 0.0001		

Males	Count=	Upper	Lower	Total
		1865	1007	2872
0		11.2	24.4	15.8%
1		88.8	75.6	84.2%
CHISQUARE 85.61	D.F. 1	Significance 0.0000		

(Table C-1 continued)

Black Males	Count=	Upper 189	Lower 326	Total 515
0		15.3	27.0	22.7%
1		84.7	73.0	77.3%

CHISQUARE 8.60

D.F. 1

Significance 0.0034

White Males	Count=	Upper 1676	Lower 681	Total 2357
0		10.7	23.2	14.3%
1		89.3	76.8	85.7%

CHISQUARE 60.94

D.F. 1

Significance 0.0000

TABLE C-2

## RECALL ARMY AD IN MAGAZINES (T114B)

Do you remember seeing, hearing, or receiving any Army advertising or promotional material before you enlisted? If so, where did you see or hear this material? IN MAGAZINES

	Count	
0-not checked	942	27.4%
1-checked	2495	72.6%

Total Sample	Count=	Upper	Lower	Total
		2256	1181	3437
0		22.4	37.0	27.4%
1		77.6	63.0	72.6%
CHISQUARE 82.52	D.F. 1	Significance 0.0000		

Females	Count=	Upper	Lower	Total
		391	174	565
0		26.3	35.6	29.2%
1		73.7	64.4	70.8%
CHISQUARE 4.59	D.F. 1	Significance 0.0322		

Males	Count=	Upper	Lower	Total
		1865	1007	2872
0		21.6	37.2	27.1%
1		78.4	62.8	72.9%
CHISQUARE 80.72	D.F. 1	Significance 0.0000		



(Table C-2 continued)

Black Males	Count=	Upper	Lower	Total
		189	326	515
0		27.5	40.8	35.9%
1		72.5	59.2	64.1%
CHISQUARE 8.60	D.F. 1		Significance 0.0034	

---

White Males	Count=	Upper	Lower	Total
		1676	681	2357
0		20.9	35.5	25.1%
1		79.1	64.5	74.9%
CHISQUARE 54.50	D.F. 1		Significance 0.0000	

TABLE C-3

## RECALL ARMY AD ON THE RADIO (T114C)

Do you remember seeing, hearing, or receiving any Army advertising or promotional material before you enlisted? If so, where did you see or hear this material? ON THE RADIO

	Count	
0-not checked	1406	40.9%
1-checked	2031	59.1%

Total Sample	Count=	Upper	Lower	Total
		2256	1181	3437
0		35.3	51.7	40.9%
1		64.7	48.3	59.1%
CHISQUARE 85.23	D.F. 1	Significance 0.0000		

Females	Count=	Upper	Lower	Total
		391	174	565
0		30.9	51.7	37.3%
1		69.1	48.3	62.7%
CHISQUARE 21.34	D.F. 1	Significance 0.0000		

Males	Count=	Upper	Lower	Total
		1865	1007	2872
0		36.2	51.6	41.6%
1		63.8	48.4	58.4%
CHISQUARE 63.57	D.F. 1	Significance 0.0000		

(Table C-3 continued)

Black Males	Count=	Upper	Lower	Total
		189	326	515
0		48.7	53.1	51.5%
1		51.3	46.9	48.5%

CHISQUARE 0.76

D.F. 1

Significance 0.3847

---

White Males	Count=	Upper	Lower	Total
		1676	681	2357
0		34.8	51.0	39.5%
1		65.2	49.0	60.5%

CHISQUARE 52.32

D.F. 1

Significance 0.0000

TABLE C-4

## RECALL ARMY AD IN THE HELP WANTED SECTION (T114D)

Do you remember seeing, hearing, or receiving any Army advertising or promotional material before you enlisted? If so, where did you see or hear this material? IN THE HELP WANTED SECTION OF THE NEWSPAPER

	Count	
0-not checked	3073	89.4%
1-checked	364	10.6%

Total Sample	Count=	Upper	Lower	Total
		2256	1181	3437
0		88.3	91.5	89.4%
1		11.7	8.5	10.6%
CHISQUARE 8.23	D.F. 1		Significance 0.0041	

Females	Count=	Upper	Lower	Total
		391	174	565
0		87.2	88.5	87.6%
1		12.8	11.5	12.4%
CHISQUARE 0.09	D.F. 1		Significance 0.7699	

Males	Count=	Upper	Lower	Total
		1865	1007	2872
0		88.5	92.1	89.8%
1		11.5	7.9	10.2%
CHISQUARE 8.49	D.F. 1		Significance 0.0036	

(Table C-4 continued)

Black Males	Count=	Upper	Lower	Total
		189	326	515
0		89.4	93.3	91.8%
1		10.6	6.7	8.2%
CHISQUARE 1.86	D.F. 1		Significance 0.1722	

---

White Males	Count=	Upper	Lower	Total
		1676	681	2357
0		88.4	91.5	89.3%
1		11.6	8.5	10.7%
CHISQUARE 4.43	D.F. 1		Significance 0.0353	



(Table C-5 continued)

Black Males	Count=	Upper 189	Lower 326	Total 515
0		85.2	91.1	88.9%
1		14.8	8.9	11.1%
CHISQUARE 3.68		D.F. 1	Significance 0.0551	

---

White Males	Count=	Upper 1676	Lower 681	Total 2357
0		87.6	90.5	88.4%
1		12.4	9.5	11.6%
CHISQUARE 3.61		D.F. 1	Significance 0.0575	

TABLE C-5

## RECALL ARMY AD IN OTHER PARTS OF THE NEWSPAPER (T114E)

Do you remember seeing, hearing, or receiving any Army advertising or promotional material before you enlisted? If so, where did you see or hear this material? IN OTHER PARTS OF THE NEWSPAPER

		Count		
0-not checked		3061	89.1%	
1-checked		376	10.9%	
<hr/>				
Total Sample	Count=	Upper 2256	Lower 1181	Total 3437
0		87.9	91.3	89.1%
1		12.1	8.7	10.9%
CHISQUARE 8.74	D.F. 1	Significance 0.0031		
<hr/>				
Females	Count=	Upper 391	Lower 174	Total 565
0		90.5	94.8	91.9%
1		9.5	5.2	8.1%
CHISQUARE 2.42	D.F. 1	Significance 0.1199		
<hr/>				
Males	Count=	Upper 1865	Lower 1007	Total 2872
0		87.3	90.7	88.5%
1		12.7	9.3	11.5%
CHISQUARE 6.76	D.F. 1	Significance 0.0093		

TABLE C-6

## RECALL ARMY AD IN THE MAIL (T114F)

Do you remember seeing, hearing, or receiving any Army advertising or promotional material before you enlisted? If so, where did you see or hear this material? IN THE MAIL

	Count	
0-not checked	1036	30.1%
1-checked	2401	69.9%

Total Sample	Count=	Upper	Lower	Total
		2256	1181	3437
0		27.9	34.4	30.1%
1		72.1	65.6	69.9%
CHISQUARE 15.02	D.F. 1	Significance 0.0001		

Females	Count=	Upper	Lower	Total
		391	174	565
0		43.7	50.6	45.8%
1		56.3	49.4	54.2%
CHISQUARE 2.00	D.F. 1	Significance 0.1570		

Males	Count=	Upper	Lower	Total
		1865	1007	2872
0		24.6	31.6	27.1%
1		75.4	68.4	72.9%
CHISQUARE 15.74	D.F. 1	Significance 0.0001		

(Table C-7 continued)

Black Males	Count=	Upper	Lower	Total
		189	326	515
0		32.3	37.4	35.5%
1		67.7	62.6	64.5%
CHISQUARE 1.17	D.F. 1		Significance 0.2797	

---

White Males	Count=	Upper	Lower	Total
		1676	681	2357
0		23.7	28.8	25.2%
1		76.3	71.2	74.8%
CHISQUARE 6.25	D.F. 1		Significance 0.0124	

TABLE C-7

## RECALL ARMY AD IN AN ARMY RECRUITING STATION (T114G)

Do you remember seeing, hearing, or receiving any Army advertising or promotional material before you enlisted? If so, where did you see or hear this material? IN AN ARMY RECRUITING STATION

	Count	
0-not checked	1227	35.7%
1-checked	2210	64.3%

Total Sample	Count=	Upper	Lower	Total
		2256	1181	3437
0		33.9	39.2	35.7%
1		66.1	60.8	64.5%
CHISQUARE 9.39	D.F. 1	Significance 0.0022		

Females	Count=	Upper	Lower	Total
		391	174	565
0		34.8	33.3	34.3%
1		65.2	66.7	65.7%
CHISQUARE 0.06	D.F. 1	Significance 0.8111		

Males	Count=	Upper	Lower	Total
		1865	1007	2872
0		33.7	40.2	36.0%
1		66.3	59.8	64.0%
CHISQUARE 11.88	D.F. 1	Significance 0.0006		



(Table C-7 continued)

Black Males	Count=	Upper 189	Lower 326	Total 515
0		36.0	39.0	37.9%
1		64.0	61.0	62.1%
CHISQUARE 0.33		D.F. 1	Significance 0.5637	

---

White Males	Count=	Upper 1676	Lower 681	Total 2357
0		33.4	40.8	35.6%
1		66.6	59.2	64.4%
CHISQUARE 11.28		D.F. 1	Significance 0.0008	

TABLE C-8

## RECALL ARMY AD AT SCHOOL (T114H)

Do you remember seeing, hearing, or receiving any Army advertising or promotional material before you enlisted? If so, where did you see or hear this material? AT SCHOOL

	Count	
0-not checked	1070	31.1%
1-checked	2367	68.9%

Total Sample	Count=	Upper	Lower	Total
		2256	1181	3437
0		29.6	34.1	31.1%
1		70.4	65.9	68.9%
CHISQUARE 7.30	D.F. 1		Significance 0.0069	

Females	Count=	Upper	Lower	Total
		391	174	565
0		29.2	38.5	32.0%
1		70.8	61.5	68.0%
CHISQUARE 4.41	D.F. 1		Significance 0.0356	

Males	Count=	Upper	Lower	Total
		1865	1007	2872
0		29.7	33.4	31.0%
1		70.3	66.6	69.0%
CHISQUARE 4.05	D.F. 1		Significance 0.0442	

(Table C-8 continued)

Black Males	Count=	Upper	Lower	Total
		189	326	515
0		23.3	31.0	28.2%
1		76.7	69.0	71.8%
CHISQUARE 3.14	D.F. 1		Significance 0.0765	

---

White Males	Count=	Upper	Lower	Total
		1676	681	2357
0		30.4	34.5	31.6%
1		69.6	65.5	68.4%
CHISQUARE 3.65	D.F. 1		Significance 0.0561	

TABLE C-9

## RECALL ARMY AD FROM A FRIEND (T114I)

Do you remember seeing, hearing, or receiving any Army advertising or promotional material before you enlisted? If so, where did you see or hear this material? FROM A FRIEND

	Count	
0-not checked	2113	61.5%
1-checked	1324	38.5%

Total Sample	Count=	Upper	Lower	Total
		2256	1181	3437
0		60.4	63.6	61.5%
1		36.4	39.6	38.5%
CHISQUARE 3.25	D.F. 1	Significance 0.0712		

Females	Count=	Upper	Lower	Total
		391	174	565
0		63.9	65.5	64.4%
1		36.1	34.5	35.6%
CHISQUARE 0.07	D.F. 1	Significance 0.7897		

Males	Count=	Upper	Lower	Total
		1865	1007	2872
0		59.6	63.3	60.9%
1		40.4	36.7	39.1%
CHISQUARE 3.47	D.F. 1	Significance 0.0624		

(Table C-9 continued)

Black Males	Count=	Upper 189	Lower 326	Total 515
0		51.3	61.0	57.5%
1		48.7	39.0	42.5%
CHISQUARE 4.24		D.F. 1	Significance 0.0396	

---

White Males	Count=	Upper 1676	Lower 681	Total 2357
0		60.6	64.3	61.6%
1		39.4	35.7	38.4%
CHISQUARE 2.73		D.F. 1	Significance 0.0983	



TABLE C-10  
RESPOND TO ARMY AD (T115D)

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Did you ever respond to any Army advertisements before you enlisted?

	Count	
1=yes	2575	74.4%
2=no	888	25.6%

---

Total Sample	Count=	Upper	Lower	Total
		2270	1193	3463
1		71.6	79.5	74.4%
2		28.4	20.5	25.6%
CHISQUARE 25.30	D.F. 1	Significance 0.0000		

---

Females	Count=	Upper	Lower	Total
		392	175	565
1		69.4	83.2	73.6%
2		30.6	16.8	26.4%
CHISQUARE 11.15	D.F. 1	Significance 0.0008		

---

Males	Count=	Upper	Lower	Total
		1878	1020	2898
1		72.1	78.9	74.5%
2		27.9	21.1	25.5%
CHISQUARE 15.84	D.F. 1	Significance 0.0001		

# APPENDIX D: CROSSTABULATIONS OF RECRUITER VARIABLES

TABLE D-1

AFFECT OF RECRUITER WHO CONTACTED ME (T016)

Describe how important the following factor was in your decision to talk to an Army recruiter: recruiter contacted me and sold me on the idea.

	Count	
1-not applicable; event did not occur	469	26.0%
2-it occurred but was not at all important	219	12.2%
3-somewhat important	369	20.5%
4-very important AND		
5-I would not have enlisted except for this reason	744	41.3%

Total Sample	Count=	Upper	Lower	Total
		1186	615	1801
1		27.7	22.9	26.0%
2		12.5	11.5	12.2%
3		19.9	21.6	20.5%
4+5		40.0	43.9	41.3%
CHISQUARE 5.88	D.F. 3		Significance 0.1177	

Females	Count=	Upper	Lower	Total
		199	87	286
1		42.2	37.9	40.9%
2		8.0	4.6	7.0%
3		13.1	14.9	13.6%
4+5		36.7	42.5	38.5%
CHISQUARE 1.99	D.F. 3		Significance 0.5742	

(Table C-10 continued)

Black Males	Count=	Upper 194	Lower 330	Total 524
1		78.9	84.8	82.6%
2		21.1	15.2	17.4%
CHISQUARE 2.64		D.F. 1	Significance 0.1039	

---

White Males	Count=	Upper 1684	Lower 690	Total 2374
1		71.3	76.1	72.7%
2		28.7	23.9	27.3%
CHISQUARE 5.37		D.F. 1	Significance 0.0205	

(Table D-1 continued)

Males	Count=	Upper	Lower	Total
		987	528	1515
1		24.7	20.5	23.2%
2		13.4	12.7	13.1%
3		21.3	22.7	21.8%
4+5		40.6	44.1	41.8%

CHISQUARE 4.16

D.F. 3

Significance 0.2449

Black Males	Count=	Upper	Lower	Total
		102	160	262
1		22.5	18.1	19.8%
2		15.7	15.0	15.3%
3		18.6	25.0	22.5%
4+5		43.1	41.9	42.4%

CHISQUARE 1.78

D.F. 3

Significance 0.6193

White Males	Count=	Upper	Lower	Total
		885	368	1253
1		25.0	21.5	23.9%
2		13.1	11.7	12.7%
3		21.6	21.7	21.6%
4+5		40.3	45.1	41.7%

CHISQUARE 3.17

D.F. 3

Significance 0.3665

TABLE C-2

## AMOUNT OF RECRUITER CONTACT WHILE IN DEP (T368)

This question is about the time you have spent in the Delayed Entry Program (DEP), that is, the time since you signed your enlistment contract. How often did you have contact with your recruiter while you were in the DEP? (actual time frames were combined because of small frequencies)

	Count	
2-everyday OR every few days	295	17.1%
4-once a week OR twice a month	1056	61.2%
6-once a month OR every couple of months	375	21.7%

Total Sample	Count=	Upper	Lower	Total
		1133	593	1726
2		17.5	16.4	17.1%
4		61.2	61.2	61.2%
6		21.4	22.4	21.7%

CHISQUARE 0.49                      D.F. 2                      Significance 0.7828

Females	Count=	Upper	Lower	Total
		192	78	270
2		25.0	24.4	24.8%
4		57.3	57.7	57.4%
6		17.7	17.9	17.8%

CHISQUARE 0.01                      D.F. 2                      Significance 0.9938

Males	Count=	Upper	Lower	Total
		941	515	1456
2		15.9	15.1	15.7%
4		62.0	61.7	61.9%
6		22.1	23.1	22.5%

CHISQUARE 0.29                      D.F. 2                      Significance 0.8669

(Table D-2 continued)

Black Males	Count=	Upper 89	Lower 155	Total 244
2		15.7	16.1	16.0%
4		58.4	59.4	59.0%
6		25.8	24.5	25.0%

CHISQUARE 0.05

D.F. 2

Significance 0.9735

---

White Males	Count=	Upper 852	Lower 360	Total 1212
2		16.0	14.7	15.6%
4		62.3	62.8	62.5%
6		21.7	22.5	21.9%

CHISQUARE 0.33

D.F. 2

Significance 0.8482



TABLE D-3

## SATISFACTION WITH RECRUITER CONTACT WHILE IN DEP (T369)

This question is about the time you have spent in the Delayed Entry Program (DEP), that is, the time since you signed your enlistment contract. Were you satisfied with the amount of contact you had with your recruiter? (responses were combined because of small frequencies)

	Count	
3-less contact than I liked	381	21.8%
4-about right	1146	65.4%
5-more contact than I liked	224	12.8%

Total Sample	Count=	Upper	Lower	Total
		1158	593	1751
3		20.0	25.1	21.8%
4		69.4	57.7	65.4%
5		10.5	17.2	12.8%
CHISQUARE 26.58	D.F. 2	Significance 0.0000		

Females	Count=	Upper	Lower	Total
		194	77	271
3		20.6	20.8	20.7%
4		70.6	63.6	68.6%
5		8.8	15.6	10.7%
CHISQUARE 2.79	D.F. 2	Significance 0.2479		

Males	Count=	Upper	Lower	Total
		964	516	1480
3		19.9	25.8	22.0%
4		69.2	56.8	64.9%
5		10.9	17.4	13.2%
CHISQUARE 24.17	D.F. 2	Significance 0.0000		

(Table D-3 continued)

Black Males	Count=	Upper 96	Lower 157	Total 253
3		24.0	28.0	26.5%
4		59.4	51.0	54.2%
5		16.7	21.0	19.4%
CHISQUARE 1.73		D.F. 2	Significance 0.4201	

---

White Males	Count=	Upper 868	Lower 359	Total 1227
3		19.5	24.8	21.0%
4		70.3	59.3	67.1%
5		10.3	15.9	11.9%
CHISQUARE 14.71		D.F. 2	Significance 0.0006	

## APPENDIX E: PRINCIPAL COMPONENTS ANALYSIS RESULTS

TABLE E-1

ECONOMIC VARIABLE FACTOR LOADINGS (absolute value &gt; .5)

Total Sample	N = 5150	Factor 1	Factor 2
Money for College		.76596	
Money for VoTech School		.75680	
Unemployment			.62922
Earning More Money			.62543
Skill Training			.55505

---

Upper TSC	N = 3384	Factor 1	Factor 2
Money for VoTech School		.72791	
Money for College		.71928	
Unemployment			.59056
Earning More Money			.56906
Skill Training			.54667

---

Lower TSC	N = 1766	Factor 1	Factor 2
Money for VoTech School		.79180	
Money for College		.78256	
Unemployment			.66707
Earning More Money			.65330

---

Females	N = 850	Factor 1	Factor 2
Money for VoTech School		.72242	
Money for College		.65439	-.50996
Skill Training		.50550	
Unemployment			.64035

(Table E-1, page 2 of 4)

Female Upper TSC	N = 599	Factor 1	Factor 2
Money for VoTech School		.73043	
Money for College		.68008	
Unemployment			.62142
Earning More Money			.52311

---

Female Lower TSC	N = 251	Factor 1	Factor 2
Money for VoTech School		.72128	
Money for College		.61628	-.57969
Earning More Money		.52484	
Unemployment			.64272

---

Males	N = 4300	Factor 1	Factor 2
Money for College		.78764	
Money for VoTech School		.76040	
Earning More Money			.64814
Unemployment			.62428
Skill Training			.57488

---

White Males	N = 3519	Factor 1	Factor 2
Money for College		.79102	
Money for VoTech School		.75466	
Participation in VEAP/GI Bill		-.50156	
Earning More Money			.65360
Unemployment			.63121
Skill Training			.58939

(Table E-1, page 3 of 4)

White Male Upper TSC	N = 2487	Factor 1	Factor 2
Money for VoTech School		.72778	
Money for College		.72414	
Unemployment			.58984
Earning More Money			.56909
Skill Training			.56070

---

White Male Lower TSC	N = 1032	Factor 1	Factor 2
Money for VoTech School		.80175	
Money for College		.80160	
Earning More Money			.68708
Unemployment			.64382

---

Black Males	N = 781	Factor 1	Factor 2
Money for College		.79581	
Money for VoTech School		.77650	
Earning More Money			.64691
Unemployment			.62451

---

Black Male Upper TSC	N = 298	Factor 1	Factor 2	Factor 3
Money for College		.76558		
Money for VoTech School		.73837		
Earning More Money			.65370	
Participation in VEAP/GI Bill			.55061	
Skill Training				-.71583
Unemployment			.54759	.63081

(Table E-1, page 4 of 4)

Black Male Lower TSC    N = 483	Factor 1	Factor 2
Money for VoTech School	.79690	
Money for College	.79371	
Unemployment		.69589
Earning More Money		.63197



TABLE E-2

## ADVERTISING VARIABLE FACTOR LOADINGS (absolute value &gt; .5)

Total Sample	N = 3423	Factor 1	Factor 2	Factor 3
Magazines		.77176		
Television		.69962		
Radio		.66417		
School		.63308		
Recruiting Station		.52575		
Mail		.52158		
Respond to AD			.74823	
Help Wanted Ads				.63576
Other Newspaper Ads				.60702

---

Upper TSC	N = 2251	Factor 1	Factor 2	Factor 3
Magazines		.73938		
Television		.65586		
School		.62682		
Radio		.61991		
Recruiting Station		.51660		
Mail		.51498		
Respond to AD			.65186	
Help Wanted Ads				.53345
Other Newspaper Ads				.53121

---

Lower TSC	N = 1172	Factor 1	Factor 2	Factor 3
Magazines		.80364		
Television		.73620		
Radio		.70649		
School		.65345		
Recruiting Station		.54026		
Mail		.52742		
Friend		.52203		
Respond to AD			.75867	
Other Newspaper Ads				.62407
Help Wanted Ads				.61478

(Table E-2, page 2 of 5)

Females	N = 560	Factor 1	Factor 2	Factor 3
Magazines		.74497		
Television		.72758		
Radio		.60795		
School		.56285		
Respond to AD			.63144	
Other Newspaper Ads				.65469
Help Wanted Ads				.52398

---

Female Upper	N = 390	Factor 1	Factor 2	Factor 3
Magazines		.71058		
Television		.66821		
Radio		.55909		
School		.55565		
Mail		.51470		
Respond to AD			.55393	
Help Wanted Ads			.53157	
Other Newspaper Ads				.62001

---

Female Lower	N = 170	Factor 1	Factor 2	
Magazines		.79112		
Television		.78400		
Radio		.65392		
School		.55920		
Respond to AD			.74246	
Help Wanted Ads			.83342	

(Table E-2, page 3 of 5)

Males	N = 2863	Factor 1	Factor 2	Factor 3
Magazines		.77769		
Television		.69445		
Radio		.67711		
School		.64554		
Recruiting Station		.54567		
Mail		.53465		
Friend		.50269		
Respond to AD			.79942	
Help Wanted Ads				.66691
Other Newspaper Ads				.61814

---

White Males	N = 2350	Factor 1	Factor 2	Factor 3
Magazines		.77053		
Television		.68482		
Radio		.67203		
School		.65081		
Recruiting Station		.53217		
Friend		.52387		
Respond to AD			.78287	
Help Wanted Ads				.66363
Other Newspaper Ads				.63100

---

White Male Upper TSC	N = 1672	Factor 1	Factor 2	Factor 3
Magazines		.74718		
Television		.65705		
School		.64443		
Radio		.63834		
Recruiting Station		.52228		
Mail		.51585		
Help Wanted Ads			.52875	
Respond to AD				.65356

(Table E-2, page 4 of 5)

White Male Lower TSC	N = 678	Factor 1	Factor 2	Factor 3
Magazines		.79872		
Radio		.71256		
Television		.71167		
School		.67721		
Recruiting Station		.53970		
Mail		.53865		
Friend		.51389		
Respond to AD			.78236	
Other Newspaper Ads				.67705

---

Black Males	N = 513	Factor 1	Factor 2	Factor 3
Magazines		.79602		
Television		.71511		
Radio		.68767		
School		.65568		
Recruiting Station		.60170		
Friend		.57664		
Mail		.55660		
Help Wanted Ads			.76550	
Other Newspaper Ads			.64321	
Respond to AD				.93298

---

Black Male Upper TSC	N = 189	Factor 1	Factor 2	Factor 3
Magazines		.73056		
School		.65568		
Television		.62057		
Recruiting Station		.61963		
Radio		.61943		
Friend		.56123		
Mail		.53712		
Help Wanted Ads			.70869	
Other Newspaper Ads		.51754	.57476	
Respond to AD				.82887

(Table E-2, page 5 of 5)

Black Male Lower TSC	N = 324	Factor 1	Factor 2	Factor 3
Magazines		.82198		
Television		.74822		
Radio		.72376		
School		.65210		
Recruiting Station		.59852		
Mail		.56744		
Help Wanted Ads			.78829	
Other Newspaper Ads			.63978	
Respond to AD				.88157

TABLE E-3

## RECRUITER VARIABLE FACTOR LOADINGS (absolute value &gt; .6)

Total Sample	N = 1617	Factor 1	Factor 2
Amount of Contact with Recruiter			.77195
Satisfaction with Recruiter Contact		-.73418	
Recruiter Made First Contact			.95208
<hr/>			
Upper TSC	N = 1091	Factor 1	
Amount of Contact with Recruiter		.76766	
Satisfaction with Recruiter Contact		.68596	
<hr/>			
Lower TSC	N = 327	Factor 1	Factor 2
Satisfaction with Recruiter Contact		.77904	
Amount of Contact with Recruiter		-.77744	
Recruiter Made First Contact			.99684
<hr/>			
Females	N = 258	Factor 1	
Satisfaction with Recruiter Contact		.74996	
Amount of Contact with Recruiter		-.74605	
<hr/>			
Female Upper TSC	N = 188	Factor 1	Factor 2
Amount of Contact with Recruiter		-.77628	
Satisfaction with Recruiter Contact		.74899	
Recruiter Made First Contact			.96548



(Table E-3, page 2 of 3)

Female Lower TSC	N = 70	Factor 1	Factor 2
Satisfaction with Recruiter Contact		.79811	
Recruiter Made First Contact			.80202
Amount of Contact with Recruiter			.62626
<hr/>			
Males	N = 1372	Factor 1	Factor 2
Amount of Contact with Recruiter			.77453
Satisfaction with Recruiter Contact		-.71623	
Recruiter Made First Contact			.93000
<hr/>			
White Males	N = 1144	Factor 1	Factor 2
Amount of Contact with Recruiter		.77003	
Satisfaction with Recruiter Contact		-.71453	
Recruiter Made First Contact			.92818
<hr/>			
White Male Upper TSC	N = 817	Factor 1	
Satisfaction with Recruiter Contact		.76184	
Amount of Contact with Recruiter		-.66079	
<hr/>			
White Male Lower TSC	N = 327	Factor 1	Factor 2
Satisfaction with Recruiter Contact		.77904	
Amount of Contact with Recruiter		-.77744	
Recruiter Made First Contact			.99684

(Table E-3, page 3 of 3)

Black Males	N = 228	Factor 1	Factor 2
Satisfaction with Recruiter Contact		.78165	
Amount of Contact with Recruiter		-.70173	
Recruiter Made First Contact			.89333
<hr/>			
Black Male Upper TSC	N = 86	Factor 1	Factor 2
Amount of Contact with Recruiter		.81300	
Recruiter Made First Contact		.63286	
Satisfaction with Recruiter Contact			.83004
<hr/>			
Black Male Lower TSC	N = 142	Factor 1	
Satisfaction with Recruiter Contact		.72195	
Amount of Contact with Recruiter		-.62542	

# APPENDIX F: DISCRIMINANT ANALYSIS RESULTS

## TABLE F-1

### DISCRIMINANT ANALYSIS WITH DEMOGRAPHIC AND INFLUENCE VARIABLES

Step/Variable	Total Sample			% Correctly Classified		
				Upper TSC	Lower TSC	Total Group
1/Money for College				85.4%	32.7%	67.08%
2/Ethnic Group				90.8%	30.4%	69.76%
3/Advertising Factor				90.5%	35.9%	71.75%
4/Age at Accession				89.1%	38.2%	71.63%
5/Money for Vocation/Tech School				89.0%	39.3%	71.96%
6/Unemployment				88.9%	40.9%	72.46%
7/Respond to Advertising				88.3%	42.1%	72.49%
8/Participation in VEAP/GI Bill				88.8%	41.5%	72.79%
9/Gender				88.6%	41.8%	72.79%

CHISQUARE 282.601      D.F. 9      Significance 0.0

Actual Group N      Predicted Group N

Upper TSC	2042	1810
Lower TSC	1045	437

Step/Variable	Females			% Correctly Classified		
				Upper TSC	Lower TSC	Total Group
1/Ethnic Group				75.2%	57.3%	69.78%
2/Money for College				83.2%	46.9%	72.36%
3/Respond to Advertising				86.9%	41.8%	73.17%
4/Advertising Factor				89.7%	40.7%	74.91%
5/Satisfaction w/ Recruiter				91.1%	49.3%	79.76%
6/Help Wanted Ads				90.6%	50.7%	79.76%
7/Participation in VEAP/GI Bill				93.0%	50.0%	81.28%
8/Recruiter Made First Contact				91.7%	50.0%	80.26%
9/Recruiting Region				93.5%	51.6%	81.97%

CHISQUARE 63.213      D.F. 9      Significance 0.0000

Actual Group N      Predicted Group N

Upper TSC	169	11
Lower TSC	64	33

(Table F-1, page 2 of 3)

Males		% Correctly Classified		
Step/Variable		Upper TSC	Lower TSC	Total Group
1/Money for College		85.7%	34.7%	67.47%
2/Ethnic Group		92.3%	27.7%	69.26%
3/Advertising Factor		90.6%	35.7%	71.29%
4/Age at Accession		90.2%	38.0%	71.89%
5/Money for Vocation/Tech School		89.2%	39.9%	71.92%
6/Unemployment		88.9%	41.6%	72.33%
CHISQUARE 231.347		D.F. 6	Significance	0.0
Actual Group N		Predicted Group N		
Upper TSC	1815	1614		
Lower TSC	979	407		

White Males		% Correctly Classified		
Step/Variable		Upper TSC	Lower TSC	Total Group
1/Money for College		85.9%	37.5%	71.48%
2/Advertising Factor		92.5%	25.4%	73.11%
3/Age at Accession		92.8%	27.1%	73.80%
4/Unemployment		93.1%	26.6%	73.88%
5/Money for Vocation/Tech School		92.5%	27.5%	73.78%
6/Recruiting Region		92.2%	29.3%	74.04%
CHISQUARE 148.360		D.F. 6	Significance	0.0000
Actual Group N		Predicted Group N		
Upper TSC	1634	1506		
Lower TSC	662	194		

(Table F-1, page 3 of 3)

Black Males Step/Variable	% Correctly Classified		
	Upper TSC	Lower TSC	Total Group
1/Age at Accession	18.8%	93.3%	65.01%
2/Other Newspaper Ads	25.9%	89.0%	65.83%
3/Participation in VEAP/GI Bill	28.0%	90.1%	66.95%
4/Money for College	31.8%	89.0%	67.97%
5/Amount of Contact w/Recruiter	30.4%	91.1%	68.69%
6/Help Wanted Ads	32.9%	91.1%	69.63%

CHISQUARE 19.197      D.F. 6      Significance 0.0038

	Actual Group N	Predicted Group N
Upper TSC	79	26
Lower TSC	135	123

TABLE F-2

## DISCRIMINANT ANALYSIS WITH INFLUENCE VARIABLES

Step/Variable	Total Sample			% Correctly Classified		
				Upper TSC	Lower TSC	Total Group
1/Money for College				85.4%	32.7%	67.08%
2/Advertising Factor				90.7%	27.7%	69.08%
3/Money for Vocation/Tech School				89.9%	29.3%	69.08%
4/Recruiter Made First Contact				89.7%	26.8%	68.80%
5/Participation in VEAP/GI Bill				89.4%	29.4%	69.56%
6/Respond to Advertising				89.4%	29.5%	69.59%
7/Earning More Money				89.0%	30.8%	69.76%
8/Skill Training				89.0%	30.8%	69.76%
9/Unemployment				89.0%	31.5%	70.02%

CHISQUARE 187.684      D.F. 9      Significance 0.0

	Actual Group N	Predicted Group N
Upper TSC	992	883
Lower TSC	489	154

Step/Variable	Females			% Correctly Classified		
				Upper TSC	Lower TSC	Total Group
1/Money for College				100.0%	0.0%	70.08%
2/Respond to Advertising				89.2%	15.9%	66.91%
3/Advertising Factor				93.8%	22.8%	72.38%
4/Recruiter Made First Contact				91.8%	22.7%	71.71%
5/Participation in VEAP/GI Bill				93.7%	25.0%	73.58%
6/Satisfaction w/Recruiter				92.9%	23.4%	73.82%
7/Help Wanted Ads				94.1%	25.0%	75.11%
8/Earning More Money				95.2%	25.0%	75.76%

CHISQUARE 36.769      D.F. 6      Significance 0.0000

	Actual Group N	Predicted Group N
Upper TSC	167	159
Lower TSC	64	16



(Table F-2, page 2 of 3)

Males		% Correctly Classified		
Step/Variable		Upper TSC	Lower TSC	Total Group
1/Money for College		85.7%	34.7%	67.47%
2/Advertising Factor		90.2%	28.9%	68.70%
3/Money for Vocation/Tech School		88.2%	31.5%	68.32%
4/Skill Training		88.0%	32.3%	68.51%
5/Earning More Money		88.0%	32.7%	68.65%
6/Participation in VEAP/GI Bill		87.6%	33.7%	68.97%
7/Respond to Advertising		87.8%	34.2%	69.25%
8/Recruiter Made First Contact		87.7%	33.4%	69.38%
CHISQUARE 157.718		D.F. 8	Significance	0.0
Actual Group N		Predicted Group N		
Upper TSC	822	721		
Lower TSC	419	140		

White Males		% Correctly Classified		
Step/Variable		Upper TSC	Lower TSC	Total Group
1/Money for College		85.9%	37.5%	71.48%
2/Advertising Factor		92.5%	25.4%	73.11%
3/Unemployment		93.9%	24.3%	73.75%
4/Money for Vocation/Tech School		93.0%	25.8%	73.61%
5/Recruiter Made First Contact		93.6%	23.7%	73.91%
CHISQUARE 134.773		D.F. 5	Significance	0.0000
Actual Group N		Predicted Group N		
Upper TSC	803	752		
Lower TSC	316	75		

(Table F-2, page 3 of 3)

Step/Variable	Black Males			% Correctly Classified		
				Upper TSC	Lower TSC	Total Group
1/Participation in VEAP/GI Bill				0.0%	100.0%	61.82%
2/Other Newspaper Ads				12.6%	93.9%	63.54%
3/Money for College				32.9%	83.9%	65.15%
4/Advertising Factor				27.1%	88.7%	66.02%
5/Help Wanted Ads				34.1%	84.2%	65.80%
6/Amount of Contact w/Recruiter				32.9%	87.4%	67.29%

CHISQUARE 16.766      D.F. 6      Significance 0.0102

	Actual Group N	Predicted Group N
Upper TSC	79	26
Lower TSC	135	118

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